UNITED STATES DISTRICT COURT

FOR THE WESTERN DISTRICT OF TEXAS

WACO DIVISION

DALI WIRELESS, INC., Plaintiff, v. CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS, VERIZON CORPORATE SERVICES GROUP INC., VERIZON ONLINE LLC, COMMSCOPE HOLDING COMPANY, INC., COMMSCOPE, INC., COMMSCOPE TECHNOLOGIES LLC, ERICSSON INC., TELEFONAKTIEBOLAGET LM ERICSSON, CORNING, INC., and CORNING OPTICAL COMMUNICATIONS LLC, Defendants.	Civil Action No. 6:22-cv-00104-ADA JURY TRIAL DEMANDED

DEFENDANTS OPPOSED MOTION TO
SEVER AND STAY PENDING FINAL RESOLUTION OF SUPPLIER LAWSUITS

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I. INTRODUCTION

Verizon[1] and its suppliers CommScope[2], Ericsson[3], and Corning[4] (collectively, "Defendants") move this Court for two independent, but related, forms of relief.

First, Defendants request that the Court sever this case into three separate cases, because CommScope, Ericsson, and Corning (collectively, the "Supplier Defendants") are misjoined in violation of 35 U.S.C. § 299. To resolve this misjoinder, this case must be severed into three cases: (1) CommScope and Verizon,[5] (2) Ericsson and Verizon, and (3) Corning and Verizon.

Second, the case(s) against Verizon should be stayed pursuant to the customer suit doctrine. The Supplier Defendants provide Verizon with 100% of the accused products in this case, and Verizon's alleged infringement is tied exclusively to its use of the Supplier Defendants' products. Resolution of Dali Wireless, Inc.'s ("Dali") claims against the Supplier Defendants has an overwhelmingly high likelihood of resolving all claims against Verizon and is appropriate in view of this Court's jurisprudence and prior practice. Accordingly, the Court should exercise its discretion to stay the cases against Verizon pending final resolution of all claims against the Supplier Defendants.

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[1] "Verizon" is defined herein as Defendants Cellco Partnership d/b/a Verizon Wireless, Verizon Corporate Services Group Inc., and Verizon Online LLC, collectively.

[2] "Commscope" is defined herein as Defendants CommScope Holding Company, Inc., CommScope Inc., and CommScope Technologies LLC, collectively.

[3] "Ericsson" is defined herein as Defendants Ericsson Inc. and Telefonaktiebolaget LM Ericsson, collectively.

[4] "Corning" is defined herein as Defendants Corning, Inc. and Corning Optical Communications LLC, collectively.

[5] CommScope also has a co-pending motion to dismiss or transfer Dali's claims against CommScope to the Eastern District of Texas where Dali asserts the same patents against the same accused CommScope products. *See* Dkt. No. 64 (explaining *inter alia* that venue in W.D. Texas is improper).

II. FACTUAL BACKGROUND

A. The Nature of Dali's Allegations

This is a four-patent case. Dali asserts all four patents against Verizon and Ericsson, three against Verizon and Corning, and two against Verizon and CommScope. All four patents relate to Distributed Antenna System ("DAS") technology. The four patents are U.S. Patent No. 11,026,232 ("the'232 patent"), U.S. Patent No. 10,334,499 ("the '499 patent"), U.S. Patent No. 11,006,343 ("the '343 patent"), and U.S. Patent No. 8,682,338 ("the '338 patent"), collectively referred to as the "Patents-in-Suit." Dali's assertions are shown below:

Parties and Patents	**8,682,338**	**10,334,499**	**11,006,343**	**11,026,232**
Verizon	X	X	X	X
Corning Products		X	X	X
Ericsson Products	X	X	X	X
CommScope Products		X		X

Dali's Complaint contains thirteen causes of action. Each is summarized below, color coded by asserted patent:

Count Number	**Accused Party**	**Patent**	**Accused Equipment**
1	Verizon	'232	CommScope's Ion®-E/ERA Platform
2	CommScope	'232	CommScope's Ion®-E/ERA Platform
3	Verizon	'232	Ericsson's Radio Dot System
4	Ericsson	'232	Ericsson's Radio Dot System
5	Verizon	'232	Corning's Everon™ 6000 Das Solution
6	Corning	'232	Corning's Everon™ 6000 Das Solution
7	Verizon &	'343	Ericsson's Radio Dot System

	Ericsson		
8	Verizon & Corning	'343	Corning's Everon™ 6000 Das Solution
9	Verizon	'338	Ericsson's Radio Dot System
10	Ericsson	'338	Ericsson's Radio Dot System
11	Verizon & Ericsson	'499	Ericsson's Radio Dot System
12	Verizon & Corning	'499	Corning's Everon™ 6000 Das Solution
13	CommScope	'499	CommScope's Ion®-E/ERA Platform

See generally Dkt. No. 1. Dali's Infringement Contentions contain the same allegations and are commensurate in scope with the counts identified in Dali's Complaint. *See* Barton Decl., Ex. A, Dali's Infringement Contentions.

In each case, Dali predicates Verizon's alleged infringement on Verizon's use of the accused equipment provided by the respective Supplier Defendants. As Dali explained in its Infringement Contentions: "the attached Contentions include claim charts that show that Verizon's deployment, operation, maintenance, testing, and use of Ericsson's Radio Dot System, Corning's Everon 6000 DAS solutions, and CommScope's ION®-E/ERA products infringe one or more claims of the Asserted Patents either literally or under the doctrine of equivalents." Barton Decl., Ex. A at 2. The Complaint does not contain any allegation that any of the Supplier Defendants are jointly or severally liable for any act of infringement with each other, nor is there any allegation across the three Supplier Defendants that they committed an act of infringement arising out of the same accused product or process.

There are no allegations that are unique to Verizon. First, for each asserted patent, each asserted claim is also asserted against a Supplier Defendant. Second, all products that Dali

identifies as an accused product with respect to Verizon are provided by a Supplier Defendant. There are no additional DAS suppliers, additional patents, or additional claims that are implicated by Dali's allegations against Verizon beyond the patents and claims asserted against the Supplier Defendants. *See* Case Readiness Status Report, Dkt. No. 52, at 4 ("Plaintiff Dali's assertions as to the Verizon Defendants represent the maximum scope of this case. i.e., All patents and claims asserted against Verizon are duplicatively asserted against one or more of CommScope, Ericsson, and Corning.").

B. The Defendants and the Accused Products

Verizon, Ericsson, Corning, and CommScope are each independent companies. *See* Dkt. Nos. 31, 35, 37, and 45. *See generally* Declaration of David Wolff in Support of Motion to Sever and Stay ("Verizon Decl."); Declaration of Luigi Tarlazzi in Support of Motion to Sever and Stay ("CommScope Decl."); Declaration of Paul Walker in Support of Motion to Sever and Stay ("Ericsson Decl."); Declaration of Jyotin Basrur in Support of Motion to Sever and Stay ("Corning Decl."). Ericsson, Corning, and CommScope are direct competitors and each design, develop, and manufacture (or otherwise procure) their own distinct subset of accused products. Ericsson Decl. ¶¶3-8; CommScope Decl. ¶3; Corning Decl. ¶¶3-8. In other words, each of the accused products is proprietary to the Supplier Defendants and not sourced from a common manufacturer. *Id.* Verizon does not design, develop, or manufacture any of the accused products. Verizon Decl. ¶3. There are no joint development agreements between Ericsson, Corning, or CommScope relating to the accused products. Ericsson Decl. ¶9; CommScope Decl. ¶3; Corning Decl. ¶9.

Each of the Accused Products supplied by the Supplier Defendants is different, and there is no allegation by Dali that they are the same. *See generally* Dkt. No. 1. Dali does not make a "representative product" argument in its Infringement Contentions, but instead charts each of the patents against each Accused Product separately. *See generally* Barton Decl., Ex. A at 2.

III. LEGAL STANDARD

A. Misjoinder and Severance

Federal Rules of Civil Procedure 20 and 21 apply to questions of misjoinder. *See, e.g.*, *Acevedo v. Allsup's Convenience Stores, Inc*., 600 F.3d 516, 521 (5th Cir. 2010) (*per curiam*). Pursuant to Rule 20(a)(2) of the Federal Rules of Civil Procedure, Defendants may be permissively joined in a single action if: (A) any right to relief is asserted against them jointly, severally, or in the alternative with respect to or arising out of the same transaction, occurrence, or series of transactions or occurrences; and (B) any question of law or fact common to all defendants will arise in the action. The patent statute, 35 U.S.C. § 299(a), uses very similar language to FRCP 20(a)(2)(A), and then adds patent-specific qualifiers:

> parties that are accused infringers may be joined in one action as defendants or counterclaim defendants, or have their actions consolidated for trial, only if—(1) any right to relief is asserted against the parties jointly, severally, or in the alternative with respect to or arising out of the same transaction, occurrence, or series of transactions or occurrences relating to the making, using, importing into the United States, offering for sale, or selling of the same accused product or process; and (2) questions of fact common to all defendants or counterclaim defendants will arise in the action.

"[M]otions to sever are governed by Federal Circuit law because joinder in patent cases is based on an analysis of the accused acts of infringement, and this issue involves substantive issues unique to patent law." *In re EMC Corp*., 677 F.3d 1351, 1354 (Fed. Cir. 2012). In addition, "joinder is not appropriate where different products or processes are involved." *Id*. Section 299(b) further clarifies that "accused infringers may not be joined in one action as defendants or counterclaim defendants, or have their actions consolidated for trial, based solely on allegations that they each have infringed the patent or patents in suit." Where a party has been misjoined, Fed. R. Civ. P. 21 provides that "[on] motion or on its own, the court may at any time, on just terms, add or drop a party."

B. Customer Suit Exception Stays

A trial court has broad discretion to stay an action against a party to promote judicial economy. *Kirsch Rsch. & Dev. v. Bluelinx Corp.,* Case No. 6:20-cv-00316-ADA, Dkt. No. 82 (W.D. Tex. Oct. 4, 2021) (Order) at 3 (citing *Anderson v. Red River Waterway Comm'n*, 231 F.3d 211, 214 (5th Cir. 2000)). And, as here, "[w]here suit is brought against a manufacturer and its customers, the action against the customers should be stayed pending resolution of the case against the manufacturer to promote judicial economy." *Kirsch,* Dkt. No. 82 at 3 (citing *In re Nintendo,* 756 F.3d 1363, 1365-66 (Fed. Cir. 2014); *see also GreatGigz Solutions, LLC v. Christus Health,* 6:21-cv-01310-ADA, Dkt. No. 34, at 2 (W.D. Tex. Sept. 12, 2022) (same). This is because "litigation against or brought by the manufacturer of infringing goods takes precedence over a suit by the patent owner against customers of the manufacturer." *Kirsch,* Dkt. No. 82 at 3 (quoting *Katz v. Lear Siegler, Inc.*, 909 F.2d 1459, 1464 (Fed. Cir. 1990)). The precedence of the manufacturer litigation over the customer litigation arises from judicial aversion to "imposing the burdens of trial on the customer" (*In re Nintendo*, 756 F.3d at 1365); the manufacturer's greater interest in resisting "an adverse ruling against its products" (*Katz,* 909 F.2d at 1464); and the substantial efficiencies gained by streamlining piecemeal customer litigation into a single manufacturer case. *In re Google*, 588 F. App'x 988, 990 (Fed. Cir. 2014).

The standard for staying a customer case is not high: "the case involving the manufacturer 'need only have the potential to resolve the 'major issues' concerning the claims against the customer—not every issue.'" *Kirsch,* Dkt. No. 82 at 4 (citing *Spread Spectrum Screening LLC v. Eastman Kodak Co.*, 657 F.3d 1349, 1358 (Fed. Cir. 2011)); *see also GreatGigz,* Dkt. No. 34, at 3 (same). The Federal Circuit's decision in *In re Google* emphasized that the plaintiff served "nearly identical infringement contentions to all defendants" relying on functionalities in code provided by Google and noted that the overlap "strongly suggests there will be substantial similarity

involving the infringement and invalidity issues in all the suits." *In re Google*, 588 F. App'x at 990; *see also GreatGigz*, Dkt. No. 34, at 3 (citing *In re Google* for proposition that courts should use a "'flexible approach' to avoid wasteful expenditure of resources, and therefore 'stay proceedings if the other suit is so closely related that substantial savings of litigation resources can be expected.'"). Where there is such a substantial overlap of issues, "[s]ince [the manufacturer's] liability is predicate to recovery from any of the defendants, the case against [the manufacturer] ***must*** proceed first." *In re Nintendo*, 756 F.3d at 1366 (emphasis added).

This court has analyzed three factors to determine whether a customer suit should be stayed: (1) whether the customer is merely a reseller; (2) whether the customer agrees to be bound by a decision in the manufacturer case; and (3) whether the manufacturer is the only source of the accused infringing products. *Kirsch*, Dkt. No. 82 at 4; *GreatGigz*, Dkt. No. 34, at 3.

IV. ARGUMENT

Dali's claims against the Supplier Defendants are misjoined. The infringement allegations involve different products and do not arise as part of the same transaction or occurrence. As a result, the Court must sever the claims against these parties with each proceeding in their own case with separate jury trials. To provide for as many efficiencies as possible, the Supplier Defendants do not oppose consolidation of the severed cases for pre-trial purposes, consistent with this Court's practice for related cases.

Irrespective of whether the Court severs the cases, the case(s) against Verizon should be stayed. Deferring Dali's duplicative claims against Verizon until after the Court resolves Dali's infringement claims against the Supplier Defendants would "facilitate [the] just, convenient, efficient, and less expensive determination." *In re Nintendo*, 756 F.3d at 1365-66. A stay would further eliminate an unnecessary burden on the Court and, at a minimum, would significantly streamline any issues that might remain against Verizon. Dali's duplicative claims against Verizon,

therefore, should be stayed. *See Katz v. Lear Siegler, Inc.*, 909 F.2d 1459, 1464 (Fed. Cir. 1990) ("[L]itigation against or brought by the manufacturer of infringing goods takes precedence over a suit by the patent owner against customers of the manufacturer.").

A. Severance of the Supplier Defendants Is Required To Remedy Misjoinder

The Supplier Defendants in this case are misjoined. Joinder is appropriate under Section 299 "only if- (1) any right to relief is asserted against the parties jointly, severally, or in the alternative with respect to or arising out of the same transaction, occurrence, or series of transactions or occurrences relating to the making, using, importing into the United States, offering for sale, or selling of the same accused product or process." 35 U.S.C. § 299.[6] Dali's infringement allegations against the Supplier Defendants are indisputably not based on the "same accused product or process."

There can be no dispute that the Supplier Defendants—Corning, CommScope, and Ericsson—do not cooperate ***with one another*** in "planning, developing, testing, operating, and maintaining" the accused products in Verizon's networks. Ericsson Decl. ¶10; CommScope Decl. ¶3; Corning Decl. ¶10. The Accused Products made and sold by the Supplier Defendants are different. Ericsson Decl. ¶8; CommScope Decl. ¶3; Corning Decl. ¶8. The Supplier Defendants are direct competitors with one another and go to great lengths to keep the proprietary technical details of their products from one another. Ericsson Decl. ¶¶3-8; CommScope Decl. ¶3; Corning Decl. ¶¶3-8. The Supplier Defendants independently developed the accused products. *Id.* When the accused products from one Supplier Defendant are deployed in Verizon's network, they are not connected to and do not directly interact with the accused products from another Supplier

[6] No Supplier Defendant intervened in this case, meaning that Section 299 applies. *See Team Worldwide Corp. v. Wal-Mart Stores, Inc*., 287 F. Supp. 3d 651, 654-57 (E.D. Tex. 2018).

Defendant. Verizon Decl. ¶4. None of the Supplier Defendants planned, developed, tested, operate, or maintain the Accused Products with or in coordination with another of the Supplier Defendants. Ericsson Decl. ¶11; CommScope Decl. ¶3; Corning Decl. ¶11. Accordingly, joinder is improper. *In re EMC*, 677 F.3d at 1359 ("We agree that joinder is not appropriate where different products or processes are involved.").

Because Corning, CommScope, and Ericsson are misjoined, they should be severed into separate cases, with separate trials. Nevertheless, to ensure that convenience and economy in administration is furthered, the Supplier Defendants do not object to their cases being consolidated for pretrial matters and, indeed, expect them to be, consistent with the Court's practice.

B. The Court Should Sever and Stay the Case Against Verizon

Regardless of whether the Court severs all four defendants into three separate cases (*e.g.*, a Verizon/CommScope case, a Verizon/Ericsson case, and a Verizon/Corning case), the Court should stay the case(s) against Verizon until final disposition of the claims against the Supplier Defendants pursuant to the customer-suit doctrine.

1. Verizon Is a Mere End-User of the Accused Instrumentalities Whereas the Supplier Defendants Are the "True Defendants"

Dali's Infringement Contentions further prove that resolution of the claims against the Supplier Defendants will resolve most if not all of the claims against Verizon. All claims and all patents asserted against Verizon are also asserted against the Supplier Defendants. And despite the fact that Dali alleges 13 separate counts in its Complaint, there are only eight claim charts. Each one of those claims charts is directed to Verizon ***and*** one of the Supplier Defendants. For example, Dali's claim chart Exhibits A and B are titled "Verizon/CommScope's Infringement," Exhibits C-F are titled "Verizon/Ericsson's Infringement," and Exhibits G-I are titled "Verizon/Corning's Infringement." This pattern continues throughout the body of Dali's infringement charts: in the

236 pages of claim charts, there is not a single allegation particularized to Verizon. Every single allegation of infringement—for both method and apparatus/system claims—is directed to "Verizon/CommScope Accused Instrumentalities," "Verizon/Ericsson Accused Instrumentalities," and "Verizon/Corning Accused Instrumentalities." Verizon is only accused of infringing through the use of the Supplier Defendants' equipment, and there is not a single allegation that Verizon does something to the equipment (*i.e.*, alters, modifies, etc.) to make it infringe.

Because the Complaint and the infringement contentions are "predicated entirely on [Verizon's] use of the supplier's products," this factor favors a stay. *GreatGigz*, Dkt. No. 34, at 4-5. Dali's *identical* allegations and claim charts make clear that "[t]he infringement case against all [Verizon] will rise and fall with the question of whether [the Supplier Defendants' equipment is] found to infringe the claims of the patent," justifying a stay. *Collaborative Agreements, LLC. v. Adobe Sys., Inc.*, No. 1-14-CV-356, 2015 WL10818739, at *2 (W.D. Tex. Aug. 21, 2015). The exclusive focus of Plaintiff's allegations in every case is the Supplier Defendants' equipment, "without which the alleged infringement by [Verizon] would not be possible." *CyWee Grp. Ltd. v. Huawei Device Co.*, No. 2:17-CV-495-WCB, 2018 WL 4002776, at *6 (E.D. Tex. Aug. 22, 2018).

Because resolution of the allegations against the Supplier Defendants would necessarily "also resolve whether the customer infringes," manufacturer liability is a "predicate" and a stay is appropriate. *In re Nintendo*, 756 F.3d at 1366; *Mantissa*, 2018 WL 3059604, at *5; *see also In re Papst Licensing GmbH & Co. KG Litig.*, 767 F. Supp. 2d 1, 10 (D.D.C. 2011) ("Underlying the customer suit doctrine is the preference that infringement determinations should be made in suits involving the true defendant, the party that controls the product's design, rather than suits involving secondary parties such as customers of the manufacturer.").

Moreover, the Supplier Defendants have possession, custody, and control of the factual information in the form of witnesses and related documentation that shows the design, manufacture and operation of the accused products. Ericsson Decl. ¶13; CommScope Decl. ¶4; Verizon Decl. ¶¶5-6. Verizon thus has "no involvement in and no essential knowledge about the alleged infringement, which begins at the design and manufacture phases." *Richmond v. Forever Gifts, Inc.*, Case No. 3:15-cv-0583, 2015 WL 11120883, at *1 (N.D. Tex. Mar. 18, 2015). Verizon does not have the ability to modify the source code of the accused products. Ericsson Decl. ¶14; Corning Decl. ¶12; Verizon Decl. ¶7. As a result, Verizon "will have very little to offer in the way of evidence regarding the substantive aspects of the infringement case." *In re Nintendo*, 544 F. App'x 934, 941 (Fed. Cir. 2013); *see also CyWee*, 2018 WL 4002776, at *3-4 (granting stay when customer "does not have the information necessary to defend against the infringement claims" and a stay "would obviate the need for non-party discovery from [manufacturers].").

While Verizon does not believe that it possesses relevant, non-cumulative information, Verizon agrees to cooperate in providing limited discovery in the Supplier Defendant case(s) should such discovery be relevant and non-cumulative. Under the proposed process, the Supplier Defendants would intermediate any discovery Plaintiff seeks to serve on Verizon to avoid burdening Verizon with information the Supplier Defendants can provide instead, consistent with the judicially-recognized need for manufacturers to "protect [their] customers" "as a matter of . . . good business." *Katz*, 909 F.2d at 1464. This type of stipulation was approved in *RPost Holdings, Inc. v. DocuSign, Inc.* as a basis to sever and stay with respect to customer defendants. Case No. 12-cv-00683, 2019 WL 1982531, at *1 (E.D. Tex. May 3, 2019).

2. Verizon Agrees To Be Bound by Infringement and Validity Decisions in the Supplier Defendant Cases as Applicable.

To the extent there are any remaining issues to be decided following the conclusion of Dali's cases against the Supplier Defendants, Verizon agrees to be bound by a Court's findings as to infringement applicable to the products at issue in each of the Supplier Defendant case(s). Likewise, Verizon agrees to be bound by any invalidity determination actually adjudicated by a Court in the severed Supplier Defendant case(s).

Even where a customer does not agree to be bound by invalidity determination, an "agreement to be bound by an infringement determination in a separate suit, that will leave little left for the court to adjudicate in the current suit, weighs heavily in favor of staying the current suit." *Wapp Tech Ltd. P'ship v. Hewlett-Packard Enters.*, No. 4:18-CV-468-ALM, 2019 WL 3818761, at *4 (E.D. Tex. Aug. 14, 2019) (referring to *CyWee*, 2018 WL 4002776, at *4); *id.* at *6 (finding stay appropriate when the customer "formally agreed to be bound" only by an "infringement determination"). Indeed, as this Court has noted, "courts have found that, even where a customer does not 'agree[] to be bound by the result' in the manufacturer suit, stay may still be appropriate because 'resolution of the major issues' in the manufacturer action will likely 'resolve these issues as to their customers.'" *Kirsch,* Dkt. No. 82 at 6 (citing *Katz*, 909 F.2d at 1464).

Decisions in this district have granted stays based on stipulations to be bound, including infringement-only stipulations. *SMIC,* 6:19-cv-719, Dkt. No. 197 ("[S]everance and stay are warranted here with the understanding that Customer Defendants will be bound by the outcome of the litigation."); *Collaborative Agreements*, 2015 WL 10818739, at *2 (stay based on "the Customer Defendants' stipulation to be bound by any infringement rulings"); *SyncView Techs. v. Grande Commc'ns Networks*, Case No. 18-cv-00412, 2019 WL 7758916, at *3 (W.D. Tex. Sept. 23, 2019) (staying clams against defendant who "agrees to be bound by any final infringement determination").

Because Verizon's agreement to be bound will avoid relitigation of matters resolved by the Court—to the extent there is even anything left to resolve following resolution of the Supplier Defendants' cases—this factor weighs heavily in favor of a stay.

3. The Supplier Defendants Are the Only Suppliers to Verizon of the Accused Instrumentalities

Dali expressly defined the accused instrumentalities to be the specific accused products found in Verizon's network and provided only by Corning, CommScope, and Ericsson. *See* Dkt. No. 1 (Complaint); Ex. A to Barton Decl. (Infringement Contentions). In other words, this is not a case where other manufacturers are alleged to supply Verizon with any portion of the accused instrumentalities. *Compare with Fractus, S.A. v. AT&T Mobility LLC*, Case No. 2:18-cv-00135-JRG (lead case), 2019 WL 3253639 (E.D. Tex. July 19, 2019) (denying motion to sever and stay claims against customer because customer was sued for infringement based upon accused products purchased from multiple unrelated manufacturers and many of those manufacturers were not involved in the case). Dali confirmed this in the Case Readiness Status Report, (Dkt. No. 52, at 4) by stating that "Plaintiff Dali's assertions as to the Verizon Defendants represent the ***maximum scope of this case***. i.e., All patents and claims asserted against Verizon are duplicatively asserted against one or more of CommScope, Ericsson, and Corning." (emphasis added).

Thus, resolution of Dali's claims against the Supplier Defendants will resolve all of Dali's claims against Verizon. This factor, too, weighs heavily in favor of staying the case against Verizon.

Because each of the factors weighs in favor of a stay, Defendants respectfully request that the Court stay the case against Verizon in favor of Dali's case against the true defendants, Verizon's Suppliers.

C. The Traditional Stay Factors Also Warrant A Stay Of Dali's Claims

Because each of the factors related to the customer-suit exception weigh heavily in favor of a stay, the Court need not address the traditional factors, but to the extent it chooses to do so, for the sake of completeness, each of these factors also weigh in favor of a stay. *See GreatGigz*, Dkt. No. 34, at 6. The factors that courts traditionally consider in deciding stays also favor granting it here. Those factors are: "(1) whether a stay will unduly prejudice or present a clear tactical disadvantage to the nonmoving party, (2) whether a stay will simplify the issues in question and trial of the case, and (3) whether discovery is complete and whether a trial date has been set." *Crossroads Sys., Inc. v. Dot Hill Sys. Corp.*, No. A-13-CA-1025-SS, 2015 WL 3773014, at *2 (W.D. Tex. June 16, 2015) (citation omitted); *Kirsch*, Dkt. No. 82 at 6-10.

1. Dali Will Not Be Harmed or Unduly Prejudiced by a Stay

Dali will not suffer any prejudice by a stay. Dali's claims against Verizon will be resolved by resolution of the same claims against Supplier Defendants.

Dali cannot seek to recover twice—that is, Dali cannot collect once from the Supplier Defendants and again from their customers downstream (*i.e.*, Verizon). *See, e.g., Glenayre Electronics, Inc. v. Jackson*, 443 F.3d 851, 864 (Fed. Cir. 2006) ("[A] party is precluded from suing to collect damages for direct infringement by a buyer and user of a product when actual damages covering that very use have already been collected from the maker and seller of that product."). Accordingly, any recovery Dali may obtain from the Supplier Defendants will exhaust the claims as to the downstream customer such as Verizon. *Quanta Computer, Inc. v. LG Electronics, Inc.*, 553 U. S. 617, 629-631 (2008) (holding that "method patents were exhausted by the sale of an item that embodied the method" and that patentees cannot "extend their rights through each downstream purchaser all the way to the end user.").

Alternatively, if one of the Supplier Defendants prevails on any of its defenses, then Dali cannot recover damages from Verizon for that portion of wireless network, because all of Dali's infringement claims are tied to the same set of accused products that are being or will be fully litigated in the cases against Verizon's suppliers. *See Shifferaw*, 2010 WL 1064380, *3 ("If [the manufacturer] is not found liable, then [the plaintiff] has no claims against the [resellers]. If [the manufacturer] is found liable and [the plaintiff] collects damages from [the manufacturer], then the plaintiff cannot then in turn collect damages from the [resellers], because [the plaintiff] cannot receive a double recovery for the same sales.").

To be sure, Dali has an inherent interest in the expeditious resolution of the case, "but the interest in timely enforcement is 'present in every case in which a patentee resists a stay, and it is therefore not sufficient, standing alone, to defeat a stay motion.'" *CyWee*, 2018 WL 4002776, at *3 (quoting *NVC Tech. LLC v. HTC Am., Inc.*, No. 2:13-cv-1058, 2015 WL 106911, at *2 (E.D. Tex. Mar. 11, 2015).

As shown above, the claims against Verizon are secondary to those against the Supplier Defendants and, therefore, Dali will not suffer any undue harm or prejudice if they are stayed pending the outcome of the cases against the Supplier Defendants. This factor weighs in favor of granting a stay to Verizon.

2. A Stay Will Simplify the Issues in this Case and Promote Judicial Economy

It is indisputable that a stay will simplify the issues in this case. Courts universally acknowledge that staying claims against customers achieves "efficiency and judicial economy." *Spread Spectrum*, 657 F.3d at 1357. Staying Dali's claims against Verizon would allow the court to focus on parties with a greater understanding of "the product's design, rather than … secondary parties such as customers … ." *In re Papst Licensing*, 767 F. Supp. 2d at 10. There will be no need

for the parties to conduct duplicative discovery of Verizon or for the Court to resolve unnecessary discovery disputes with Verizon that may never arise depending on the outcome of Dali's claims against the Supplier Defendants.

If, as discussed above, Dali cannot obtain a ruling of infringement against one or both of the Supplier Defendants, or if the Supplier Defendants are successful in establishing the asserted patents are invalid, Dali's claims against Verizon will be moot. If Dali's does obtain a ruling of infringement against one or more of the Supplier Defendants, any damages it receives from the Supplier Defendants' as they relate to sales to Verizon will obviate the need for further infringement proceedings against Verizon. *See LG Electronics Inc. v. Asustek Computers et al*., 126 F. Supp. 2d. 414, 423 (E.D. Va. 2000) ("If the court does find [the manufacturers] liable, and allows [plaintiff] to collect royalties from [the manufacturers], [the [plaintiff] cannot then in turn collect royalties from the entity to whom the infringer sells the product.") (citing *Intel Corp. v. ULSI Sys. Tech. Inc*., 995 F.2d 1566, 1568-69 (Fed. Cir. 1993)). Thus, resolution of the claims against the Supplier Defendants should resolve Dali's claims against Verizon.

Accordingly, there is no compelling reason for Dali's duplicative and derivative claims against Verizon to proceed, and this factor weighs heavily in favor of a stay. *CyWee*, 2018 WL 4002776, at *4 ("Importantly, Huawei has agreed to be bound by the infringement determination in the Delaware action. … Huawei has thus shown that granting the motion to stay would simplify the issues in this case … . This factor thus weighs heavily in Huawei's favor.").

3. Discovery Has Not Yet Begun and a Trial Date Is Over a Year Away

Discovery in this case has not yet begun; the Markman hearing that triggers discovery is not scheduled to occur until December 12, 2022. Jury selection and trial are set for December 8, 2023. Accordingly, discovery will not begin for several months, and a trial is more than a year away. This case is in its infancy, which weighs heavily in Verizon's favor.

V. CONCLUSION

Severance of this case to resolve the misjoinder is warranted. In addition, staying the case against Verizon is warranted based on the customer suit exception stay considerations as well as the traditional factors.

Dated: October 12, 2022

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CERTIFICATE OF CONFERENCE

Pursuant to Local Rule CV-7(g), counsel for Defendant has conferred with counsel for Dali in a good-faith effort to resolve the matter presented herein. Counsel for Dali opposes the instant Motion.

/s/ Ross R. Barton
Ross R. Barton

CERTIFICATE OF SERVICE

I hereby certify that on October 12, 2022, I caused the foregoing to be electronically filed with the Clerk of Court using CM/ECF, which will send notification of such filing to all registered participants.

/s/ Ross R. Barton
Ross R. Barton

UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

DALI WIRELESS, INC., Plaintiff, v. CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS, VERIZON CORPORATE SERVICES GROUP INC., VERIZON ONLINE LLC, COMMSCOPE HOLDING COMPANY, INC., COMMSCOPE, INC., COMMSCOPE TECHNOLOGIES LLC, ERICSSON INC., TELEFONAKTIEBOLAGET LM ERICSSON, CORNING, INC., and CORNING OPTICAL COMMUNICATIONS LLC, Defendants.	Civil Action No. 6:22-cv-00104-ADA JURY TRIAL DEMANDED

DECLARATION OF ROSS R. BARTON IN SUPPORT OF DEFENDANTS' OPPOSED MOTION TO SEVER AND STAY PENDING FINAL RESOLUTION OF SUPPLER LAWSUITS

I, Ross R. Barton, make the following declaration under the pains and penalties of perjury:

1. I am an attorney licensed to practice law in the State of North Carolina and the Commonwealth of Virginia. I am a Partner in the law firm of Alston & Bird LLP and counsel for Defendants Verizon Wireless, Corning, Inc., and Corning Optical Communications LLC. I am over 18 years of age and am competent to testify as to the matters set forth herein. I make the following statements based on my personal knowledge, unless expressly stated otherwise.

2. Attached hereto as **Exhibit A** is a true and correct copy of the June 10, 2022 Infringement Contentions.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on October 12, 2022, in Charlotte, North Carolina.

/s/ Ross R. Barton
Ross R. Barton

EXHIBIT A

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

DALI WIRELESS, INC., Plaintiff, v. CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS, VERIZON CORPORATE SERVICES GROUP INC., VERIZON ONLINE LLC, COMMSCOPE HOLDING COMPANY, INC., COMMSCOPE, INC., COMMSCOPE TECHNOLOGIES LLC, ERICSSON INC., TELEFONAKTIEBOLAGET LM ERICSSON, CORNING INC., and CORNING OPTICAL COMMUNICATIONS LLC, Defendants.	)	Case No. 6:22-CV-00104-ADA **JURY TRIAL DEMANDED**

PLAINTIFF'S PRELIMINARY INFRINGEMENT CONTENTIONS TO DEFENDANTS CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS, VERIZON CORPORATE SERVICES GROUP INC., AND VERIZON ONLINE LLC

Plaintiff Dali Wireless, Inc. ("Dali") hereby provides its Preliminary Infringement Contentions to Defendants Cellco Partnership d/b/a Verizon Wireless, Verizon Corporate Services Group Inc., and Verizon Online LLC (collectively, "Verizon") as to U.S. Patent Nos. 11,026,232 (the "'232 Patent"), 11,006,343 (the "'343 patent"), 8,682,338 (the "'338 patent"), and 10,334,499 (the "'499 Patent") (collectively, "the Asserted Patents"). This disclosure is without any concession, agreement, admission or waiver of any ultimate determination of relevance, admissibility or discoverability of particular information for any purpose, and without waiver of any attorney-client, work product or other privilege or immunity. Dali makes this disclosure based on its present information, without the benefit of discovery. Moreover, to the extent the Court

construes the claims of any of the asserted patents, additional arguments and/or information may be relevant in light of any such construction. Dali, therefore, reserves the right to supplement and/or amend this disclosure at any time in view of the Court's construction, in view of any new information learned during fact and expert discovery, or for any other reason permissible under the Federal and Local Rules.

The Preliminary Infringement Contentions attached as Exhibits A-I hereto are based on information presently available to Dali. Based upon that information, the attached Contentions include claim charts that show that Verizon's deployment, operation, maintenance, testing, and use of Ericsson's Radio Dot System, Corning's Everon 6000 DAS solutions, and CommScope's ION®-E/ERA products infringe one or more claims of the Asserted Patents either literally or under the doctrine of equivalents.

Dali presently asserts that the priority dates for all asserted claims of the '232 Patent, the '338 Patent, the '343 Patent and the '499 Patent are those reflected on the face of the patents—*i.e.*, September 14, 2010 ('232 Patent, '338 Patent), and February 7, 2011 ('499 Patent, '343 Patent). To the extent that the dates of Dali's conception and reduction to practice becomes a relevant disputed issue, Dali reserves the right to supplement and/or amend this disclosure at any time in view of the Court's construction, in view of any new information learned during fact and expert discovery, or for any other reason permissible under the Federal and Local Rules.

Pursuant to the Court's Order Governing Proceedings, Dali will produce today copies of any non-privileged documents relating to Dali's conception and reduction to practice of the inventions claimed in the Asserted Patents of which Dali is presently aware, including copies of the Asserted Patents' file histories.

Date: June 10, 2022

Respectfully submitted,

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Attorneys for Dali Wireless, Inc.

CERTIFICATE OF SERVICE

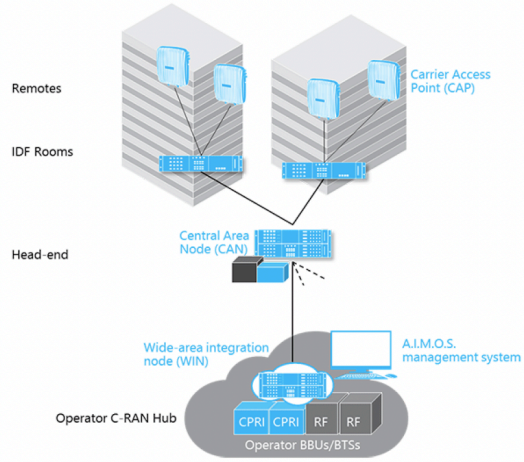
The undersigned counsel hereby certifies that on June 10, 2022, a true and correct copy of the foregoing was served on all counsel of record via email.

s/*Cristofer Leffler*
Cristofer Leffler

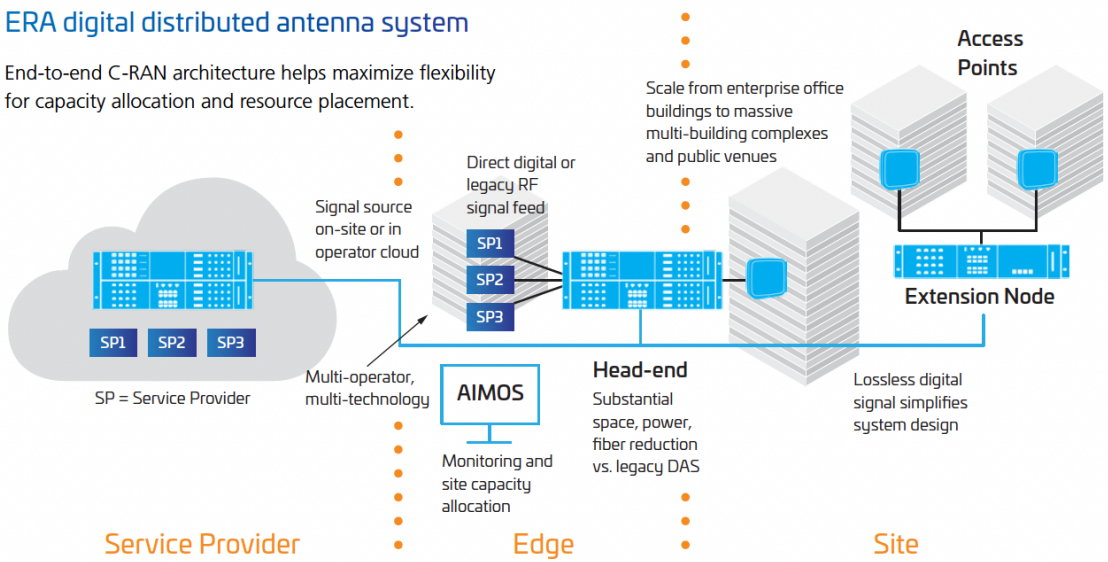
Exhibit A

Plaintiff Dali Wireless Inc. ("Dali") contends that Defendants Cellco Partnership D/B/A Verizon Wireless, Verizon Corporate Services Group Inc., Verizon Online LLC (collectively, "Verizon"), CommScope Holding Company, Inc., CommScope Inc., and CommScope Technologies LLC (collectively, "CommScope") (altogether "Verizon / CommScope") infringe the below-identified claims of Dali's U.S. Patent No. 11,026,232 (the '232 Patent) by deploying, operating, maintaining, testing, and using Verizon's LTE and 5G networks which include equipment relating to solutions for in-building wireless coverage, such as CommScope's ION-E/ERA platform (including but not limited to Wide-Area Integration Node (WIN), Central Area Nodes (CAN), Transport Extension Nodes (TEN), Carrier Access Points (CAP), Universal Access Points (UAP), cabling and switches, antennas, various interface modules and donor cards, and any software running thereon) (collectively, "Verizon / CommScope Accused Instrumentalities"). The specific components, systems, and constructs identified in this chart are for exemplary purposes only and Dali reserves all rights to supplement as additional components, systems, and constructs become known through discovery, as well as after Verizon / CommScope produces documents and source code and/or the Court construes any terms from the claims of the '232 Patent. Claims 1-3, 6-8, 12-14, 16-18, and 20 are infringed under 35 U.S.C. § 271(a) when Verizon / CommScope uses the Verizon / CommScope Accused Instrumentalities.

Claim 1 – Element	Verizon / CommScope's Infringement
[PREAMBLE] A wireless system comprising:	To the extent the preamble is interpreted to be limiting, the Verizon / CommScope Accused Instrumentalities satisfies this preamble. On information and belief, and based on publicly available information, the Verizon / CommScope Accused Instrumentalities satisfy each and every limitation of claim 1 by providing a wireless system as detailed here.
[ELEMENT 1-A] one or more central nodes that receive a number of a plurality of radio resources from an operator hub that enables wireless communications and that provides the plurality of	The Verizon / CommScope Accused Instrumentalities satisfy this claim element. CommScope's ION-E/ERA platform includes one or more central nodes that receive a number of a plurality of radio resources from an operator hub that enables wireless communications and that provides the plurality of radio resources to a radio access network using the Common Public Radio Interface (CPRI) protocol.

Claim 1 – Element	Verizon / CommScope's Infringement
radio resources to a radio access network using the Common Public Radio Interface (CPRI) protocol; and	For example, CommScope's ION-E/ERA platform includes a Central Area Node ("CAN") "located at the campus or building head-end. It digitizes baseband RF signals, combines signals from different operators and distributes them throughout a building or campus." *See, e.g.*, DALIVZN-000429. For example, CommScope's ION-E/ERA platform includes a "CPRI digital donor (CDD)" that "receives CPRI digital signals from compatible operator baseband units (BBU)." *See, e.g.*, *Id*. CommScope's ION-E/ERA platform also includes a "RF donor card (RFD) [that] receives analog RF signals from operator base transceiver stations (BTS)." *Id*. CommScope's ION-E/ERA platform's CAN receives radio resources from an operator hub: **ERA and ION-E** ERA is an extension of the hardware and software architecture that CommScope originally introduced as ION-E. Going forward, all new systems are ERA. Since ION-E and ERA share the same hardware modules, system software and management systems, existing ION-E systems can be updated and expanded using ERA components.  DALIVZN-000428.

Claim 1 – Element	Verizon / CommScope's Infringement

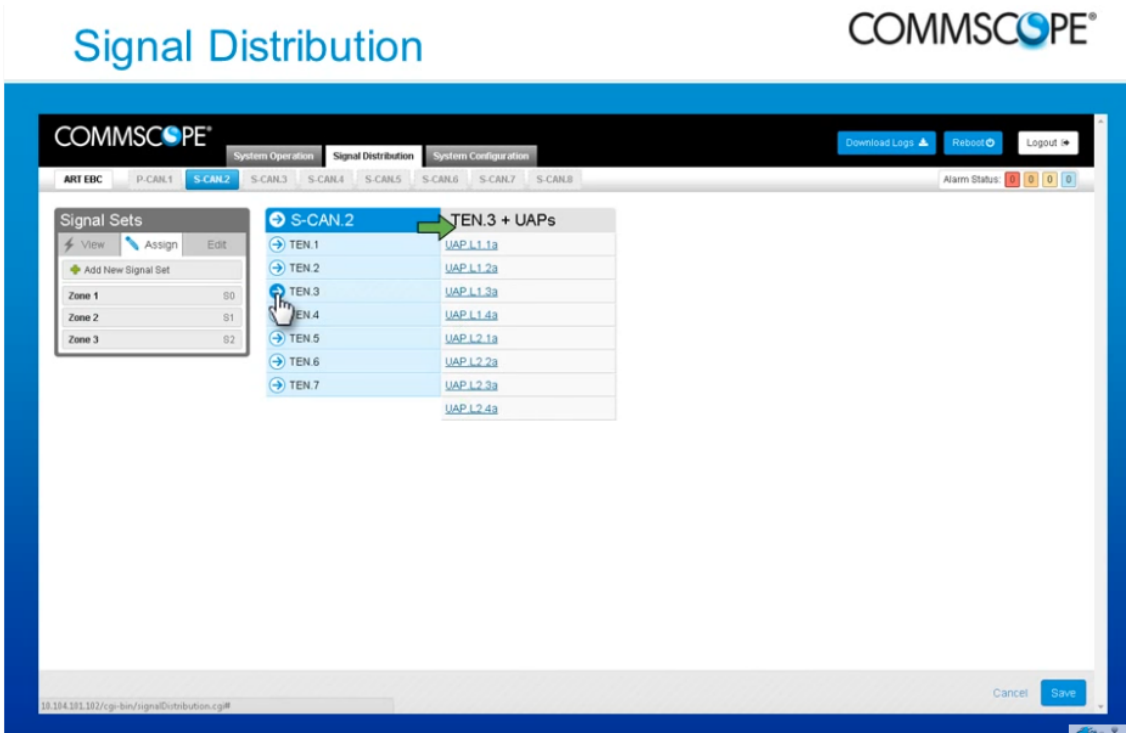


DALIVZN-000423.

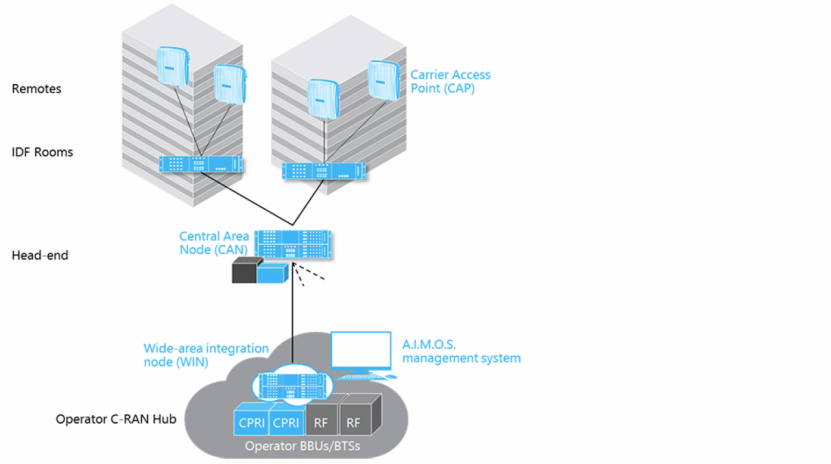
Further, CommScope's ION-E/ERA platform includes a central node (CAN) that can send digital representations of a first set of downlink radio resources to a first remote radio unit (CAP or UAP) at a first point in time, including through the TEN for transmission at an antenna of the first remote radio unit (CAP or UAP).

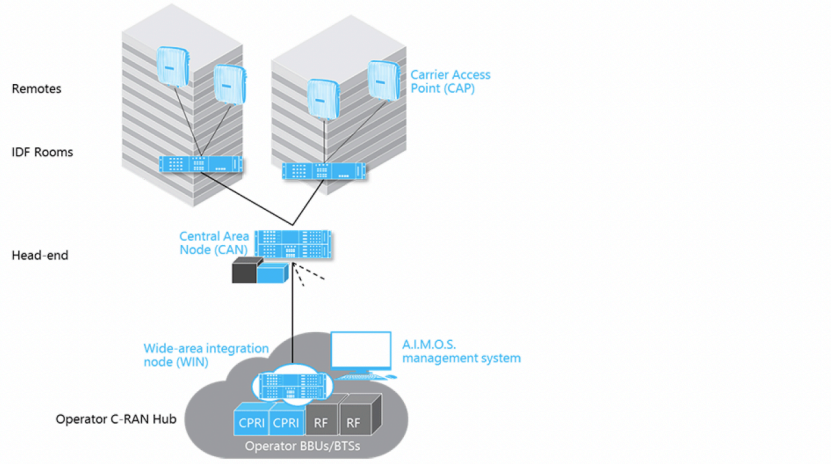
Specifically, CommScope's ION-E/ERA platform comprises software that allows for the creation of signal sets that are customized sets of radio resources. Multiple signal sets from different base stations can be created and assigned to either a remote access point (CAP or UAP) or a TEN. According to a webinar introduction to ION-E:

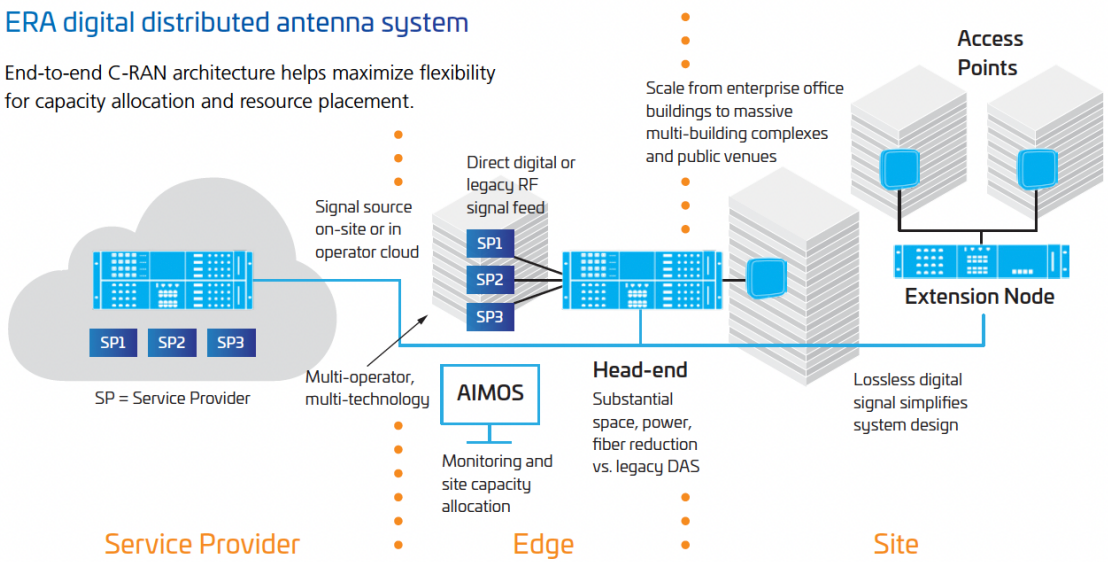
"[W]e can send any signals to any of the UAPs. … The UAP can have only one assigned signal set. So we create signal sets from Zone 3, Zone 2 and Zone 1, and the signals that … comprise[ ] the signal sets are different based on these operators. So this would be the way we do that. We, for example, create a new signal set called Zone 1 and then select which channels go to … that signal set.

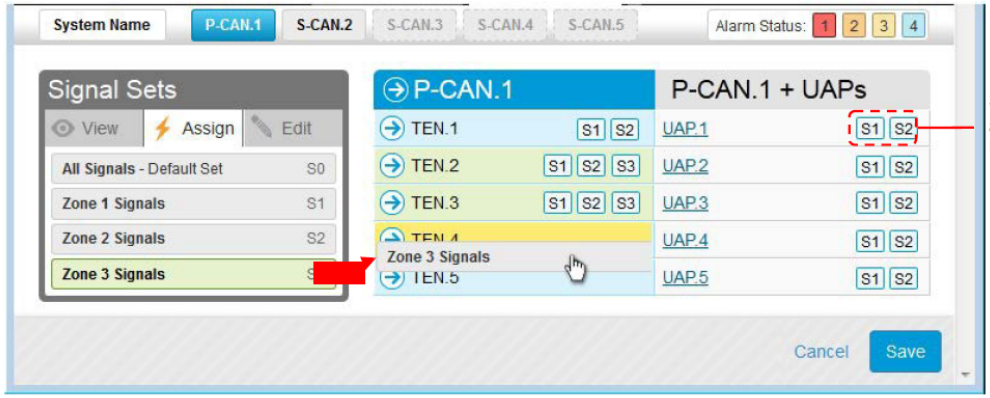
Claim 1 – Element	Verizon / CommScope's Infringement
	And we do Zone 2 and Zone 3. So we can have the same sectors, same signals in multiple signal sets but only one signal set can go to any of the UAPs. You can either send the Zone 1, Zone 2, Zone 3 signal set … directly to a TEN, then it will be automatically be distributed to all of the UAPs that are connected to that TEN. This is probably how you would do that in most cases where you have a zone driven by a TEN." *See, e.g.*, Webinar Introduction to ION-E, Telecom Knowledge Share, Published July 22, 2016, available at https://www.youtube.com/watch?v=Kmw2qMlgLrU ("Webinar Introduction to ION E") at 22:00-22:49, last accessed June 8, 2022.  *Id.* CommScope's ION-E/ERA platform's CAN includes a CPRI interface:

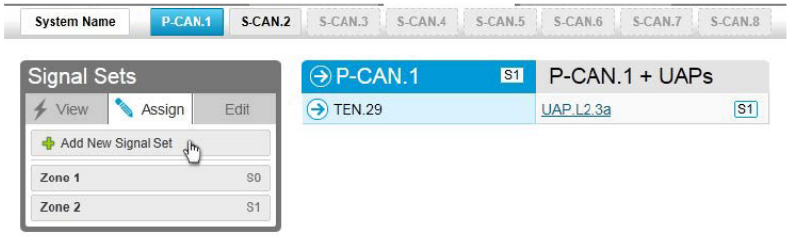
Claim 1 – Element	Verizon / CommScope's Infringement
	• **The consolidated head-end requires less equipment.** Since its Common Public Radio Interface (CPRI) baseband interface eliminates the need for radio-freqency (RF) hardware and interfaces—taking up less space and less operational budget. DALIVZN-000635.
[ELEMENT 1-B] a plurality of wireless access points that is coupled to the one or more central nodes and distributes one or more wireless signals to one or more wireless subscribers, the plurality of wireless access points including at least a first access point and a second access point,	The Verizon / CommScope Accused Instrumentalities satisfy this claim element. CommScope's ION-E/ERA platform includes a plurality of wireless access points that is coupled to the one or more central nodes and distributes one or more wireless signals to one or more wireless subscribers, the plurality of wireless access points including at least a first access point and a second access point. For example, CommScope's ION-E/ERA platform includes "[a] range of remote access points that convert the digital signal back to radio frequency (RF) for over-the-air transmission." These wireless access points include "the carrier access point (CAP)" and "the universal access point (UAP)." *See, e.g.*, DALIVZN-000429. The central nodes distribute wireless signals to the wireless access points. For example, CommScope's ION-E/ERA platform includes a Central Area Node ("CAN") "located at the campus or building head-end. It digitizes baseband RF signals, combines signals from different operators and distributes them throughout a building or campus." *See, e.g.*, DALIVZN-000429.

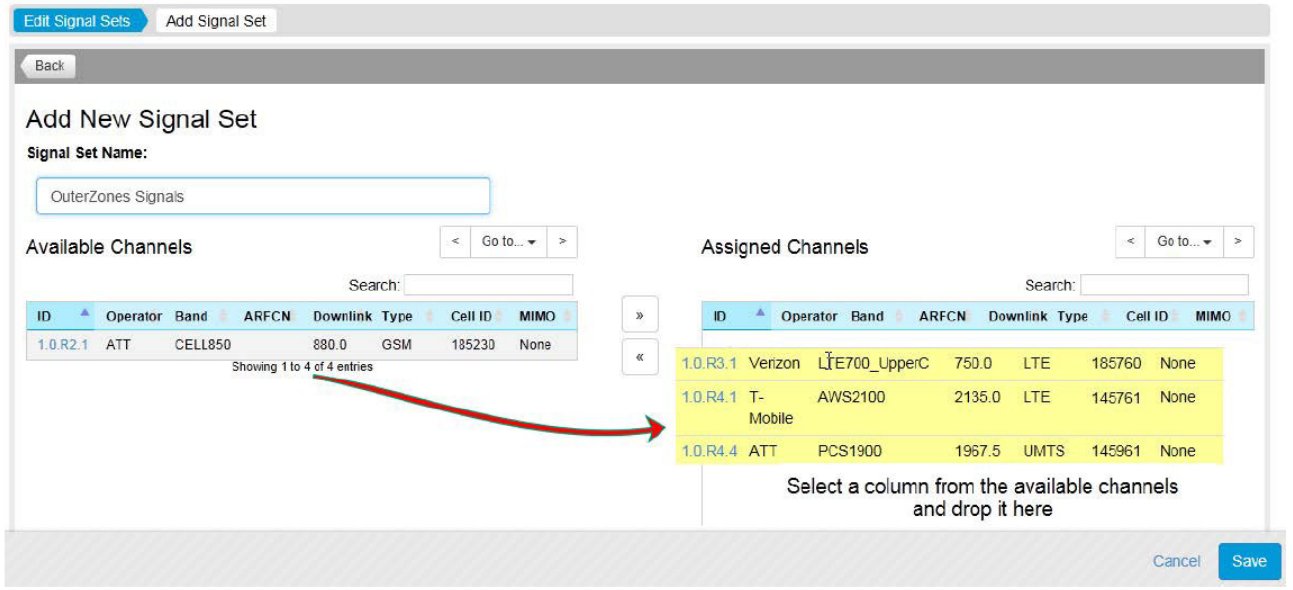
Claim 1 – Element	Verizon / CommScope's Infringement
	ERA and ION-E ERA is an extension of the hardware and software architecture that CommScope originally introduced as ION-E. Going forward, all new systems are ERA. Since ION-E and ERA share the same hardware modules, system software and management systems, existing ION-E systems can be updated and expanded using ERA components.  DALIVZN-000428.

Claim 1 – Element	Verizon / CommScope's Infringement
	ERA and ION-E ERA is an extension of the hardware and software architecture that CommScope originally introduced as ION-E. Going forward, all new systems are ERA. Since ION-E and ERA share the same hardware modules, system software and management systems, existing ION-E systems can be updated and expanded using ERA components.  DALIVZN-000428.

Claim 1 – Element	Verizon / CommScope's Infringement
	 DALIVZN-000423.
[ELEMENT 1-C] wherein one or more central nodes assigns a first subset of the number of the plurality of radio resources to the first access point and a second subset of the number of the plurality of radio resources to the second access point, the first subset including more radio resources than the second subset, and	The Verizon / CommScope Accused Instrumentalities satisfy this claim element. CommScope's ION-E/ERA platform includes the one or more central nodes recited in claim **Element 1-A**, wherein one or more central nodes assigns a first subset of the number of the plurality of radio resources to the first access point and a second subset of the number of the plurality of radio resources to the second access point, the first subset including more radio resources than the second subset. For example, CommScope's ION-E/ERA platform includes a baseband unit (CAN) that can assign assigns a first subset of the number of the plurality of radio resources to a first access point (CAP or UAP) and a second subset of the number of the plurality of radio resources to a second access point (CAP or UAP). The first subset of radio resources can include more radio resources than the second subset.

Claim 1 – Element	Verizon / CommScope's Infringement
	According to a CommScope webinar, "[w]e have a full control over each channel, we can turn channels on and off…and we can distribute the channels to any UAP with extreme flexibility, so any signal can go to any UAP… We create signal sets and then those signal sets can be sent via software or software command to them, to any UAP." Webinar Introduction to ION-E, Telecom Knowledge Share, Published July 22, 2016, available at https://www.youtube.com/watch?v=Kmw2qMlgLrU ("Webinar Introduction to ION E") at 22:21-22:48, last accessed June 8, 2022. In addition, multiple signal sets from different base stations can be created and assigned to remote access points: **Assign Signal Sets (Direct signal traffic to TENs and UAPs)** Signal Sets, which are a user-defined set of channels, can be quickly assigned to CANs and all UAPs assigned to them, TENs and all UAPs assigned to them, or to individual UAPs on the *Signal Distribution* page. 1. Click on the *Signal Distribution* tab to open the page. 2. Assign a signal set by: ○ Clicking on a signal set and dragging it onto the a TEN or UAP (set icons adjacent to the device name indicate the sets assigned to a TEN or UAP) ○ Clicking on a signal set to select it (green highlight) and then clicking on each TEN or UAP to which you wish to assign the signal set.  3. Click the *Save* button after you've assigned each signal set DALIVZN-000465.

Claim 1 – Element	Verizon / CommScope's Infringement
	5.5. Signal Distribution The ION-E uses signal sets to group the detected signals to simplify signal routing to the radiating elements throughout the system. First the user must create and define the signal sets by assigning channels to the sets. The signal sets are then assigned as needed using drag and drop functionality to route the signals to the TENs and UAPs. **Create and Edit Signal Sets** 1. Click on the *Signal Distribution* tab to open the page. 2. Select a set from the *Signal Sets* list and click the *Edit* button to edit an existing set. 3. Click on the *Add a New Signal Set* link to open the Add *Signal Set* page to create a new set.  4. Enter a Name for the signal set in the *Signal Set Name* field. 5. Click to select a channel from the *Available Channels* list or shift click to select multiple channels and drag them onto the *Assigned Channels* list.

Claim 1 – Element	Verizon / CommScope's Infringement
	 6. Click the *Save* button to save the Signal Set. DALIVZN-000464-465. Further, CommScope's Era System "is an extension of the hardware and software architecture that CommScope originally introduced as ION-E" such that "ION-E and Era share the same hardware modules, system software and management systems" and "existing ION-E systems can be updated and expanded using Era components." See, e.g., DALIVZN-000428.
[ELEMENT 1-D] wherein, in response to a change in need of a number of wireless subscribers coupled to the second access point and which of the second subset is loaded	The Verizon / CommScope Accused Instrumentalities satisfy this claim element. CommScope's ION-E/ERA platform includes the one or more central nodes recited in claim **Element 1-A**, wherein, in response to a change in need of a number of wireless subscribers coupled to the second access point and which of the second subset is loaded beyond a threshold, the one or more central nodes assign additional radio resources of the plurality of radio resources to the second access point.

Claim 1 – Element	Verizon / CommScope's Infringement
beyond a threshold, the one or more central nodes assign additional radio resources of the plurality of radio resources to the second access point.	The Era System further provides for dynamic "capacity routing" which, on information and belief, dynamically changes the amount of radio resources between the first set of radio resources and a second set of radio resources. • **Capacity can be dynamically shared across many buildings.** The solution adjusts levels to meet variable demand, thanks to its capacity routing capabilities. DALIVZN-000635. Further, CommScope's ION-E/ERA platform is described as "Flexible . . . Shift capacity to where and when you need it, all in software." *See, e.g.*, DALIVZN-000421. CommScope's Era System "is an extension of the hardware and software architecture that CommScope originally introduced as ION-E" such that "ION-E and Era share the same hardware modules, system software and management systems" and "existing ION-E systems can be updated and expanded using Era components." See, e.g., DALIVZN-000428. An Era C-RAN antenna system product marketing video published by CommScope further explains that: "The system adapts to user movements. For example, between university classrooms in the daytime and residences at night. Any RF input can go into any port, so there is no need for cumbersome source-to-port mapping and remapping. When sectorization changes are needed, sectors can be remapped to different coverage areas remotely through a drag-and-drop web interface, without site visits or manual rewiring." *See* CommScope Era C-RAN Antenna System, CommScope, published February 12, 2018, available at https://youtu.be/uBRDL7a8_8g ("Era C-RAN Marketing Video") at 1:27-1:54, last accessed June 8, 2022.

Claim 1 – Element	Verizon / CommScope's Infringement
	CommScope's ION-E/ERA platform also allows the system to "[a]djust capacity across the network by sector or channel through a web-based drag-and-drop interface." *See, e.g.*, DALIVZN-000428. CommScope also states that "as usage patterns change, capacity can be re-allocated through a web-based drag and drop software GUI rather than physical re-wiring." *See, e.g.*, DALIVZN-000429.

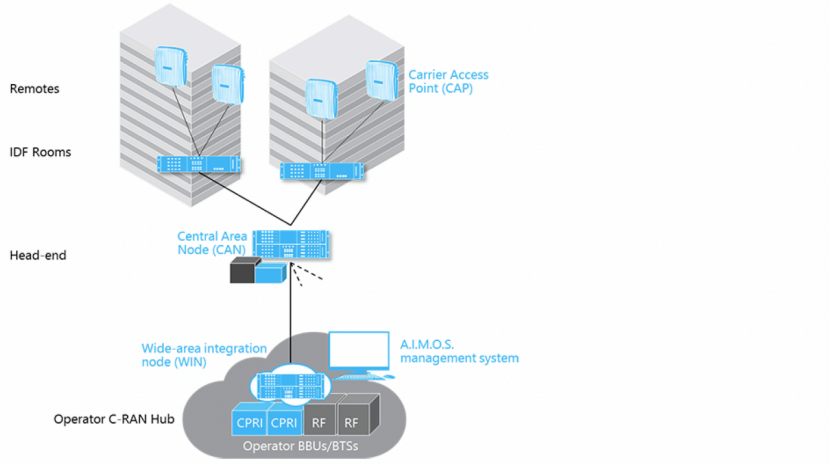
Claim 2	Verizon / CommScope's Infringement
The wireless system of claim 1, wherein the change in need is determined based on a change in capacity needed by the number of wireless subscribers coupled to the second access point or a change in throughput needed by the number of wireless subscribers coupled to the second access point.	The Verizon / CommScope Accused Instrumentalities satisfy this claim element. CommScope's ION-E/ERA platform meets the wireless system of claim 1, wherein the change in need is determined based on a change in capacity needed by the number of wireless subscribers coupled to the second access point or a change in throughput needed by the number of wireless subscribers coupled to the second access point. *See* **Claim Element 1-C** and **Element 1-D**.

Claim 3	Verizon / CommScope's Infringement
The wireless system of claim 1, wherein the additional resources are included in the first subset prior to being assigned to the second access point, and wherein the one or more central nodes assign	The Verizon / CommScope Accused Instrumentalities satisfy this claim element. CommScope's ION-E/ERA platform meets the wireless system of claim 1, wherein the additional resources are included in the first subset prior to being assigned to the second access point, and wherein the one or more central nodes assign the additional radio resources of the plurality of radio resources to the second access point comprises removing the additional resources from the first subset assigned to the first access point. *See* **Claim Element 1-C** and **Element 1-D**.

Claim 3	Verizon / CommScope's Infringement
the additional radio resources of the plurality of radio resources to the second access point comprises removing the additional resources from the first subset assigned to the first access point.	

Claim 6	Verizon / CommScope's Infringement
The wireless system of claim 1, wherein the first access point belongs to a first sector and the second access point belongs to a second sector.	The Verizon / CommScope Accused Instrumentalities satisfy this claim element. CommScope's ION-E/ERA platform meets the wireless system of claim 1, wherein the first access point belongs to a first sector and the second access point belongs to a second sector. *See* **Claim Element 1-C**; *see also, e.g.*, DALIVZN-000428 ("Adjust capacity across the network by sector or channel through a web-based drag-and-drop interface").

Claim 7	Verizon / CommScope's Infringement
The wireless system of claim 1, wherein the first access point belongs to a first building and the second access point belongs to a second building.	The Verizon / CommScope Accused Instrumentalities satisfy this claim element. CommScope's ION-E/ERA platform meets the wireless system of claim 1, wherein the first access point belongs to a first building and the second access point belongs to a second building.

Claim 7	Verizon / CommScope's Infringement
	ERA and ION-E ERA is an extension of the hardware and software architecture that CommScope originally introduced as ION-E. Going forward, all new systems are ERA. Since ION-E and ERA share the same hardware modules, system software and management systems, existing ION-E systems can be updated and expanded using ERA components.  DALIVZN-000428.

Claim 8- Element	Verizon / CommScope's Infringement
The wireless system of claim 1, wherein at least one of the plurality of wireless access points enables communication between an IP device and the one or more central nodes.	The Verizon / CommScope Accused Instrumentalities satisfy this claim element. CommScope's ION-E/ERA platform meets the wireless system of claim 1, wherein at least one of the plurality of wireless access points enables communication between an IP device and the one or more central nodes. *See* **Claim Element 1-B**.

Claim 12 – Element	Verizon / CommScope's Infringement
[PREAMBLE] A method comprising:	To the extent the preamble is interpreted to be limiting, the Verizon / CommScope Accused Instrumentalities satisfies this preamble. On information and belief, and based on publicly available information, the Verizon / CommScope Accused Instrumentalities satisfy each and every limitation of claim 12 by performing the method of claim 12 as detailed here. *See* **Claim 1**. Further, this method is infringed by Verizon / CommScope when the Verizon / CommScope Accused Instrumentalities are tested and/or used by Verizon / CommScope.
[ELEMENT 12-A] receiving a plurality of radio resources from an operator hub that operates using a Common Public Radio Interface (CPRI) protocol;	The Verizon / CommScope Accused Instrumentalities satisfy this claim element. CommScope's ION-E/ERA platform receives a plurality of radio resources from an operator hub that operates using a Common Public Radio Interface (CPRI) protocol. *See* **Claim Element 1-A**.
[ELEMENT 12-B] assigning a first subset of the plurality of radio resources to a first access point included in a plurality of wireless access points and a second subset of the plurality of radio resources to a second access point included in the plurality of wireless access points, the	The Verizon / CommScope Accused Instrumentalities satisfy this claim element. CommScope's ION-E/ERA platform assigns a first subset of the plurality of radio resources to a first access point included in a plurality of wireless access points and a second subset of the plurality of radio resources to a second access point included in the plurality of wireless access points, the first subset including more radio resources than the second subset. *See* **Claim Element 1-C**.

Claim 12 – Element	Verizon / CommScope's Infringement
first subset including more radio resources than the second subset; and	
[ELEMENT 12-C] in response to a change in need of a number of wireless subscribers coupled to the second access point and which of the second subset is loaded beyond a threshold, assigning one or more additional radio resources of the plurality of radio resources to the second access point.	The Verizon / CommScope Accused Instrumentalities satisfy this claim element. CommScope's ION-E/ERA platform in response to a change in need of a number of wireless subscribers coupled to the second access point and which of the second subset is loaded beyond a threshold, assigns one or more additional radio resources of the plurality of radio resources to the second access point. *See* **Claim Element 1-D**.

Claim 13	Verizon / CommScope's Infringement
The method of claim 12, wherein the change in need is determined based on a change in capacity needed by the number of wireless subscribers coupled to the second access point or a change in throughput needed by the number of wireless subscribers coupled to the second access point.	The Verizon / CommScope Accused Instrumentalities satisfy this claim element. CommScope's ION-E/ERA platform performs the method of claim 12, wherein the change in need is determined based on a change in capacity needed by the number of wireless subscribers coupled to the second access point or a change in throughput needed by the number of wireless subscribers coupled to the second access point. *See* **Claim Element 1-D**. Further, this method is infringed by Verizon / CommScope when the Verizon / CommScope Accused Instrumentalities are tested and/or used by Verizon / CommScope.

Claim 14	Verizon / CommScope's Infringement
The method of claim 12, wherein the one or more additional resources are included in the first subset prior to being assigned to the second access point, and wherein assigning the one or more additional radio resources comprises removing the one or more additional resources from the first subset assigned to the first access point.	The Verizon / CommScope Accused Instrumentalities satisfy this claim element. CommScope's ION-E/ERA platform performs the method of claim 12, wherein the one or more additional resources are included in the first subset prior to being assigned to the second access point, and wherein assigning the one or more additional radio resources comprises removing the one or more additional resources from the first subset assigned to the first access point. *See* **Claim Element 1-C**. Further, this method is infringed by Verizon / CommScope when the Verizon / CommScope Accused Instrumentalities are tested and/or used by Verizon / CommScope.

Claim 16	Verizon / CommScope's Infringement
The method of claim 12, where the first access point belongs to a first sector and the second access point belongs to a second sector.	The Verizon / CommScope Accused Instrumentalities satisfy this claim element. CommScope's ION-E/ERA platform performs the method of claim 12, where the first access point belongs to a first sector and the second access point belongs to a second sector. *See* Claim 6; *see also, e.g.*, DALIVZN-000428 ("Adjust capacity across the network by sector or channel through a web-based drag-and-drop interface"). Further, this method is infringed by Verizon / CommScope when the Verizon / CommScope Accused Instrumentalities are tested and/or used by Verizon / CommScope.

Claim 17	Verizon / CommScope's Infringement
The method of claim 12, where the first access point belongs to a first building and the second access point belongs to a second building.	The Verizon / CommScope Accused Instrumentalities satisfy this claim element. CommScope's ION-E/ERA platform performs the method of claim 12, where the first access point belongs to a first sector and the second access point belongs to a second sector. *See* **Claim 7**. Further, this method is infringed by Verizon / CommScope when the Verizon / CommScope Accused Instrumentalities are tested and/or used by Verizon / CommScope.

Claim 18	Verizon / CommScope's Infringement
The method of claim 12, wherein at least one of the plurality of wireless access points enables communication between an IP device and one or more central nodes.	The Verizon / CommScope Accused Instrumentalities satisfy this claim element. CommScope's ION-E/ERA platform performs the method of claim 12, wherein at least one of the plurality of wireless access points enables communication between an IP device and one or more central nodes. *See* **Claim Element 1-B**. Further, this method is infringed by Verizon / CommScope when the Verizon / CommScope Accused Instrumentalities are tested and/or used by Verizon / CommScope.

Claim 20 - Element	Verizon / CommScope's Infringement
[PREAMBLE] One or more non-transitory computer readable storage media storing instructions that, when executed by one or more processors, cause	To the extent the preamble is interpreted to be limiting, the Verizon / CommScope Accused Instrumentalities satisfies this preamble. On information and belief, and based on publicly available information, the Verizon / CommScope Accused Instrumentalities satisfy each and every limitation of claim 20 by including one or more non-transitory computer readable storage media storing instructions that, when executed by one or more processors, cause the one or more processors to perform the steps of claim 20.

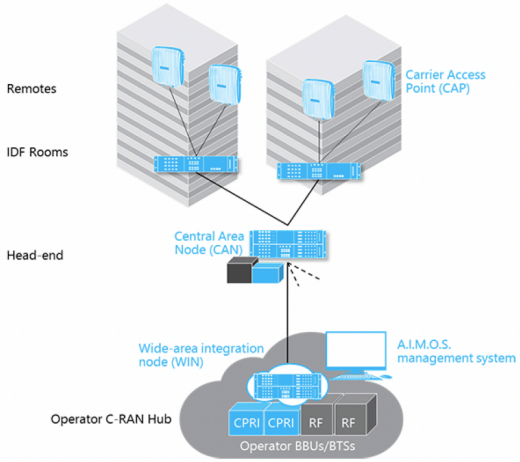
Claim 20 - Element	Verizon / CommScope's Infringement
the one or more processors to perform the steps of:	*See* **Claim 1**. Further, this method is infringed by Verizon / CommScope when the Verizon / CommScope Accused Instrumentalities are tested and/or used by Verizon / CommScope.
[ELEMENT 20-A] receiving a plurality of radio resources from an operator hub that operates using a Common Public Radio Interface (CPRI) protocol;	The Verizon / CommScope Accused Instrumentalities satisfy this claim element. CommScope's ION-E/ERA platform receives a plurality of radio resources from an operator hub that operates using a Common Public Radio Interface (CPRI) protocol. *See* **Claim Element 1-A**.
[ELEMENT 20-B] assigning a first subset of the plurality of radio resources to a first access point included in a plurality of wireless access points and a second subset of the plurality of radio resources to a second access point included in the plurality of wireless access points, the first subset including more	The Verizon / CommScope Accused Instrumentalities satisfy this claim element. CommScope's ION-E/ERA platform assigns a first subset of the plurality of radio resources to a first access point included in a plurality of wireless access points and a second subset of the plurality of radio resources to a second access point included in the plurality of wireless access points, the first subset including more radio resources than the second subset. *See* **Claim Element 1-C**.

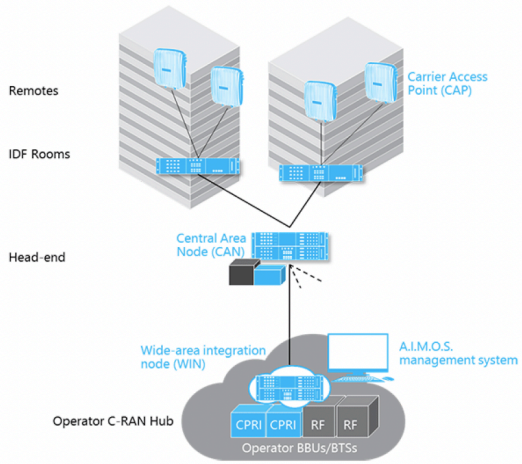
Claim 20 - Element	Verizon / CommScope's Infringement
radio resources than the second subset; and	
[ELEMENT 20-C] in response to a change in need by a number of wireless subscribers coupled to the second access point and which of the second subset is loaded beyond a threshold, assigning one or more additional radio resources of the plurality of radio resources to the second access point.	The Verizon / CommScope Accused Instrumentalities satisfy this claim element. CommScope's ION-E/ERA platform in response to a change in need by a number of wireless subscribers coupled to the second access point and which of the second subset is loaded beyond a threshold, assigns one or more additional radio resources of the plurality of radio resources to the second access point. *See* **Claim Element 1-D**.

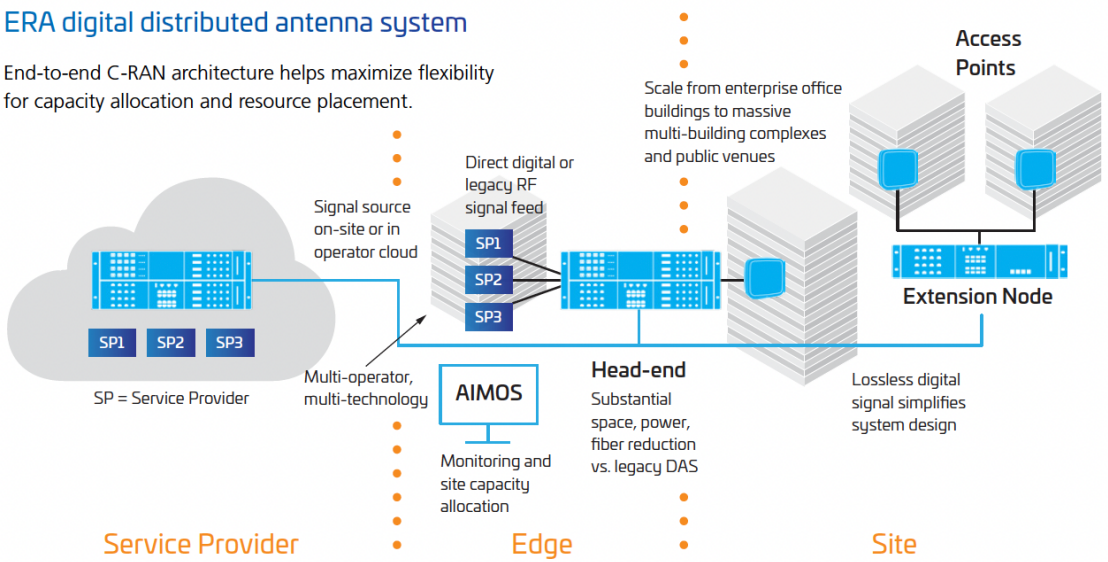
Exhibit B

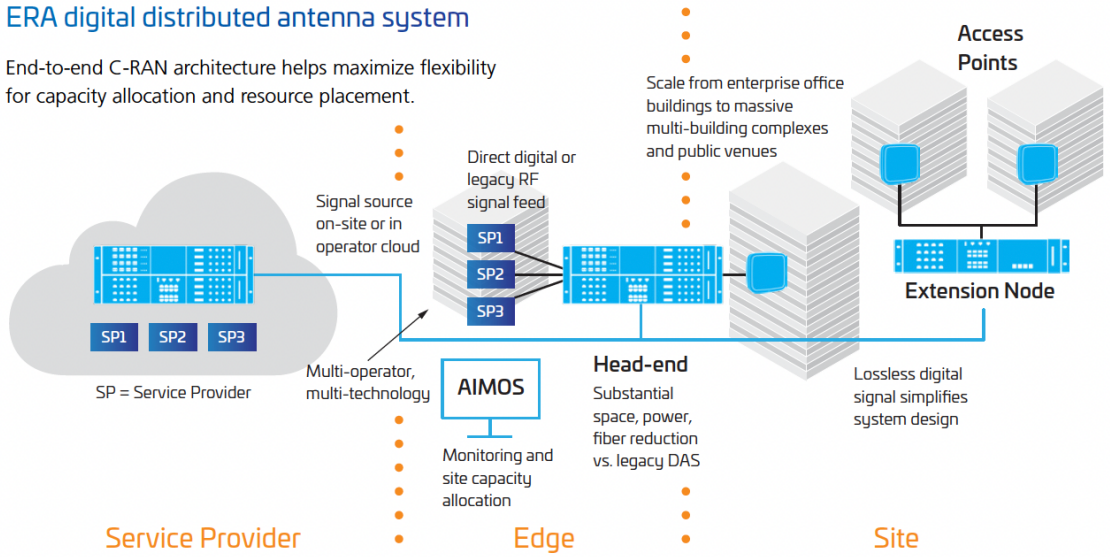
Plaintiff Dali Wireless Inc. ("Dali") contends that Defendants Cellco Partnership D/B/A Verizon Wireless, Verizon Corporate Services Group Inc., Verizon Online LLC (collectively, "Verizon"), CommScope Holding Company, Inc., CommScope Inc., and CommScope Technologies LLC (collectively, "CommScope") (altogether, "Verizon / CommScope") infringe the below-identified claims of Dali's U.S. Patent No. 10,334,499 (the '499 Patent) by deploying, operating, maintaining, testing, and using Verizon's LTE and 5G networks which include equipment relating to solutions for in-building wireless coverage, such as CommScope's ION-E/ERA platform (including but not limited to Wide-Area Integration Node (WIN), Central Area Nodes (CAN), Transport Extension Nodes (TEN), Carrier Access Points (CAP), Universal Access Points (UAP), cabling and switches, antennas, various interface modules and donor cards, and any software running thereon) (collectively, "Verizon / CommScope Accused Instrumentalities"). The specific components, systems, and constructs identified in this chart are for exemplary purposes only and Dali reserves all rights to supplement as additional components, systems, and constructs become known through discovery, as well as after Verizon / CommScope produces documents and source code and/or the Court construes any terms from the claims of the '499 Patent. Claims 1-4, 8-11, 13, 14-16, and 18-19 are infringed under 35 U.S.C. § 271(a) when Verizon / CommScope uses the Verizon / CommScope Accused Instrumentalities.

Claim 1 – Element	Verizon / CommScope's Infringement
[PREAMBLE] A system for transporting wireless communications, comprising:	To the extent the preamble is interpreted to be limiting, the Verizon / CommScope Accused Instrumentalities satisfies this preamble. On information and belief, and based on publicly available information, the Verizon / CommScope Accused Instrumentalities satisfy each and every limitation of claim 1 by providing system for transporting wireless communications. For example, CommScope states that an "all-digital ERA distributed antenna system makes in-building wireless simpler and more economical. Operating on standard IT infrastructure—Category 6A and fiber—these solutions allow operators, neutral hosts and enterprises to provide high capacity with 'five bars' of in-building coverage." *See, e.g.*, DALIVZN-000427.
[ELEMENT 1-A] a baseband unit;	The Verizon / CommScope Accused Instrumentalities satisfy this claim element. The ION-E/ERA platform includes a baseband unit.

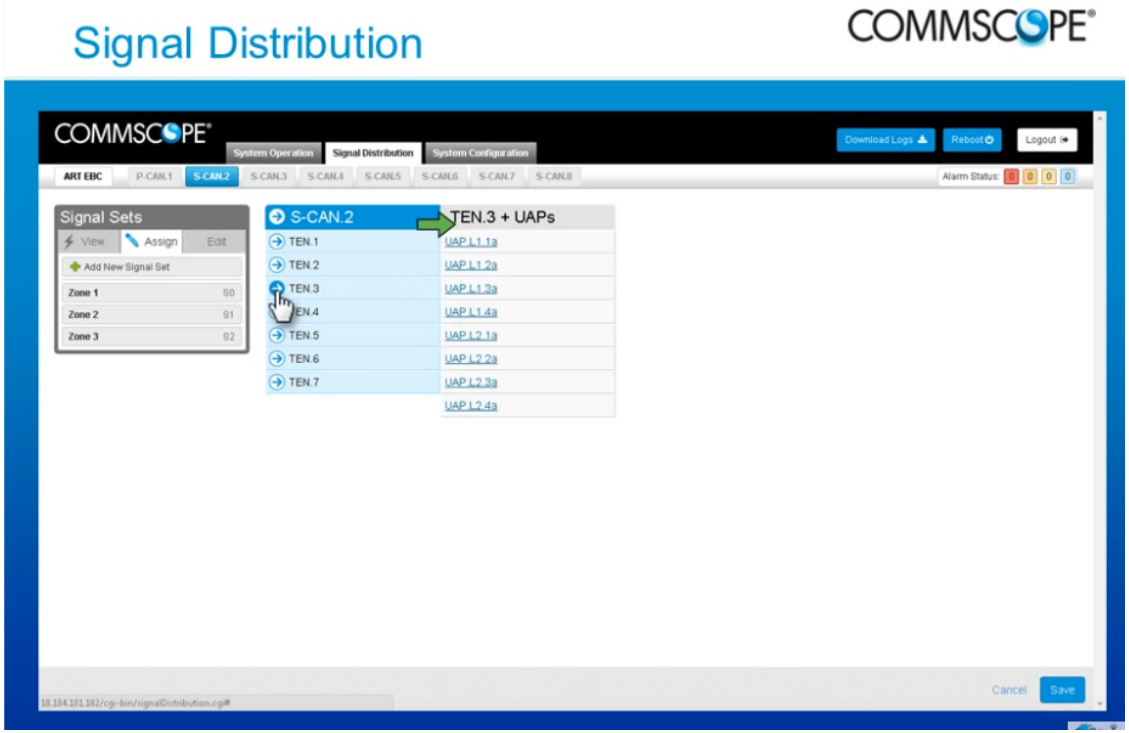
Claim 1 – Element	Verizon / CommScope's Infringement
	For example, CommScope's ION-E/ERA platform includes a Central Area Node ("CAN") "located at the campus or building head-end. It digitizes baseband RF signals, combines signals from different operators and distributes them throughout a building or campus." *See, e.g.*, DALIVZN-000429. **ERA and ION-E** ERA is an extension of the hardware and software architecture that CommScope originally introduced as ION-E. Going forward, all new systems are ERA. Since ION-E and ERA share the same hardware modules, system software and management systems, existing ION-E systems can be updated and expanded using ERA components.  DALIVZN-000428.
[ELEMENT 1-B] a plurality of signal sources, including at least a first signal source and a second signal source;	The Verizon / CommScope Accused Instrumentalities satisfy this claim element. CommScope's ION-E/ERA platform includes a plurality of signal sources, including at least a first signal source and a second signal source. For example, CommScope explains that the ION-E/ERA platform "[t]ake[s] advantage of an all-digital CPRI baseband interface that eliminates the need for analog-to-digital conversions, further reducing head-end size and power requirements" and that the ION E/ERA platform includes a "central area node (CAN)," which "digitizes baseband RF signals, combines signals from different operators and distributes them throughout a building or campus." *See, e.g.*, DALIVZN-000428-429.

Claim 1 – Element	Verizon / CommScope's Infringement
[ELEMENT 1-C] a plurality of remote units, including at least a first remote unit and a second remote unit;	The Verizon / CommScope Accused Instrumentalities satisfy this claim element. CommScope's ION-E/ERA platform includes a plurality of remote units, including at least a first remote unit and a second remote unit. For example, CommScope's ION-E/ERA platform includes "[a] range of remote access points that convert the digital signal back to radio frequency (RF) for over-the-air transmission." These remote units include "the carrier access point (CAP)" and "the universal access point (UAP)." *See, e.g.*, DALIVZN-000429. **ERA and ION-E** ERA is an extension of the hardware and software architecture that CommScope originally introduced as ION-E. Going forward, all new systems are ERA. Since ION-E and ERA share the same hardware modules, system software and management systems, existing ION-E systems can be updated and expanded using ERA components.  DALIVZN-000428.

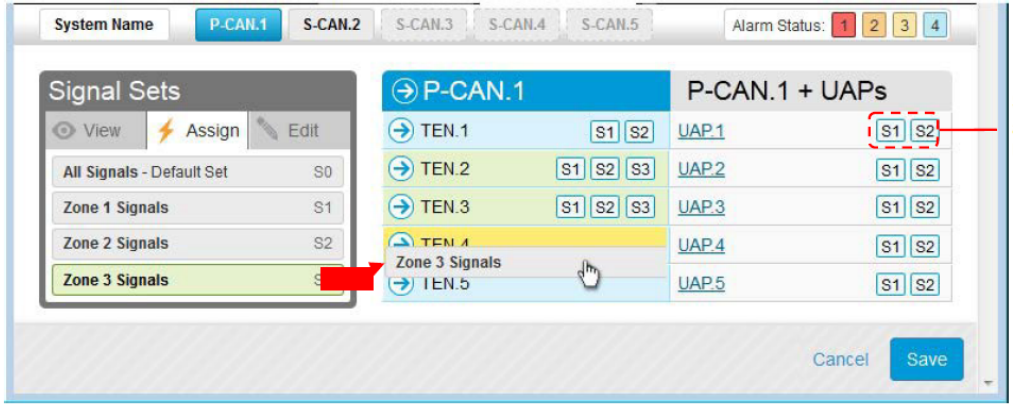
Claim 1 – Element	Verizon / CommScope's Infringement
	 DALIVZN-000423.
[ELEMENT 1-D] wherein the baseband unit comprises a plurality of interfaces to communicatively couple the baseband unit to the plurality of signal sources;	The Verizon / CommScope Accused Instrumentalities satisfy this claim element. CommScope's ION-E/ERA platform includes a baseband unit that comprises a plurality of interfaces to communicatively couple the baseband unit to the plurality of signal sources. For example, CommScope's ION-E/ERA platform includes a "CPRI digital donor (CDD)" module. This module "receives CPRI digital signals from compatible operator baseband units (BBU)." *See, e.g.*, DALIVZN-000429. CommScope's ION-E/ERA platform also includes a "RF donor card (RFD) [that] receives analog RF signals from operator base transceiver stations (BTS)." *Id.* Further, CommScope explains that the ION-E/ERA platform "[t]ake[s] advantage of an all-digital CPRI baseband interface that eliminates the need for analog-to-digital conversions, further reducing head-end size and power requirements" and that the ION E/ERA platform includes a "central area node

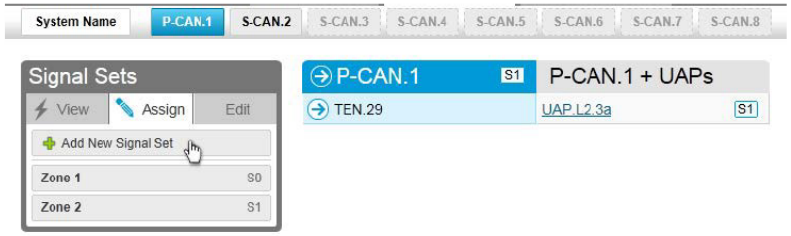
Claim 1 – Element	Verizon / CommScope's Infringement
	(CAN)," which "digitizes baseband RF signals, combines signals from different operators and distributes them throughout a building or campus." *See, e.g.*, DALIVZN-000428-429. CommScope also explains that the ION E/ERA platform includes a "central area node (CAN)," which "digitizes baseband RF signals, combines signals from different operators and distributes them throughout a building or campus." *See, e.g.*, DALIVZN-000429.  DALIVZN-000423.
[ELEMENT 1-E] wherein the baseband unit is configured to receive a plurality of radio resources from the first signal source and the second signal source;	The Verizon / CommScope Accused Instrumentalities satisfy this claim element. CommScope's ION-E/ERA platform includes a baseband unit that is configured to receive a plurality of radio resources from the first signal source and the second signal source. For example, CommScope's ION-E/ERA platform includes a Central Area Node ("CAN") "located at the campus or building head-end. It digitizes baseband RF signals, combines signals from different operators and distributes them throughout a building or campus." *See, e.g.*, *Id.*

Claim 1 – Element	Verizon / CommScope's Infringement
	For example, CommScope's ION-E/ERA platform includes a "CPRI digital donor (CDD)" that "receives CPRI digital signals from compatible operator baseband units (BBU)." *See, e.g.*, DALIVZN-000429. CommScope's ION-E/ERA platform also includes a "RF donor card (RFD) [that] receives analog RF signals from operator base transceiver stations (BTS)." *Id*.
[ELEMENT 1-F] wherein the baseband unit is configured to send a digital representation of a first set of radio resources to the first remote unit at a first point in time, the first set of radio resources for transmission at an antenna of the first remote unit;	The Verizon / CommScope Accused Instrumentalities satisfy this claim element. CommScope's ION-E/ERA platform includes a baseband unit that is configured to send a digital representation of a first set of radio resources to the first remote unit at a first point in time, the first set of radio resources for transmission at an antenna of the first remote unit. For example, CommScope's ION-E/ERA platform includes a baseband unit (CAN) that can send digital representations of a first set of downlink radio resources to a first remote unit (CAP or UAP) at a first point in time, including through the TEN for transmission at an antenna of the first remote unit (CAP or UAP). Specifically, CommScope's ION-E/ERA platform comprises software that allows for the creation of signal sets that are customized sets of radio resources. Multiple signal sets from different base stations can be created and assigned to either a remote unit (CAP or UAP) or a TEN. According to a webinar introduction to ION-E: "[W]e can send any signals to any of the UAPs. … The UAP can have only one assigned signal set. So we create signal sets from Zone 3, Zone 2 and Zone 1, and the signals that … comprise[ ] the signal sets are different based on these operators. So this would be the way we do that. We, for example, create a new signal set called Zone 1 and then select which channels go to … that signal set. And we do Zone 2 and Zone 3. So we can have the same sectors, same signals in multiple signal sets but only one signal set can go to any of the UAPs. You can either send the Zone 1, Zone 2, Zone 3 signal set … directly to a TEN, then it will be automatically be distributed to all of the UAPs that are connected to that TEN. This is probably how you would do that in most cases where you have a zone driven by a TEN." *See, e.g.*, Webinar Introduction to ION-E, Telecom Knowledge Share, Published July 22, 2016,

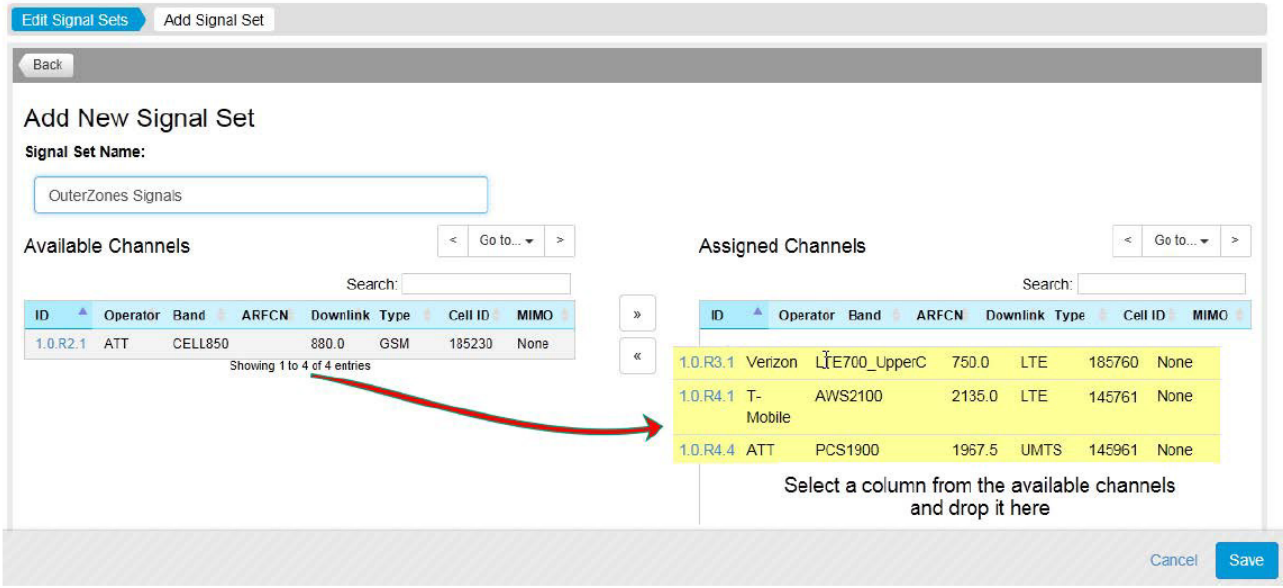
Claim 1 – Element	Verizon / CommScope's Infringement
	available at https://www.youtube.com/watch?v=Kmw2qMlgLrU ("Webinar Introduction to ION E") at 22:00-22:49, last accessed June 8, 2022.  *Id.*
[ELEMENT 1-G] wherein the baseband unit is configured to send a digital representation of a second set of radio resources to the first remote unit at a second point in time, the second	The Verizon / CommScope Accused Instrumentalities satisfy this claim element. CommScope's ION-E/ERA platform includes a baseband unit that is configured to send a digital representation of a second set of radio resources to the first remote unit at a second point in time, the second set of radio resources for transmission at the antenna of the first remote unit. For example, CommScope's ION-E/ERA platform includes a baseband unit (CAN) that can send digital representations of a second set of radio resources to the first remote unit (CAP or UAP) at a second point in time for transmission through the antenna of the remote unit. CommScope's ION-

Claim 1 – Element	Verizon / CommScope's Infringement
set of radio resources for transmission at the antenna of the first remote unit;	E/ERA platform allows for the creation of different signal sets from base stations that comprise different radio resources. A second set of radio resources may be sent to a first remote unit (CAP or UAP) at a different point in time from the first set. According to a CommScope webinar, "[w]e have a full control over each channel, we can turn channels on and off…and we can distribute the channels to any UAP with extreme flexibility, so any signal can go to any UAP… We create signal sets and then those signal sets can be sent via software or software command to them, to any UAP." Webinar Introduction to ION-E, Telecom Knowledge Share, Published July 22, 2016, available at https://www.youtube.com/watch?v=Kmw2qMlgLrU ("Webinar Introduction to ION E") at 22:21-22:48, last accessed June 8, 2022. In addition, multiple signal sets from different base stations can be created and assigned to remote units:

Claim 1 – Element	Verizon / CommScope's Infringement
	Assign Signal Sets (Direct signal traffic to TENs and UAPs) Signal Sets, which are a user-defined set of channels, can be quickly assigned to CANs and all UAPs assigned to them, TENs and all UAPs assigned to them, or to individual UAPs on the *Signal Distribution* page. 1. Click on the *Signal Distribution* tab to open the page. 2. Assign a signal set by: o Clicking on a signal set and dragging it onto the a TEN or UAP (set icons adjacent to the device name indicate the sets assigned to a TEN or UAP) o Clicking on a signal set to select it (green highlight) and then clicking on each TEN or UAP to which you wish to assign the signal set.  3. Click the *Save* button after you've assigned each signal set DALIVZN-000465.

Claim 1 – Element	Verizon / CommScope's Infringement
	5.5. Signal Distribution The ION-E uses signal sets to group the detected signals to simplify signal routing to the radiating elements throughout the system. First the user must create and define the signal sets by assigning channels to the sets. The signal sets are then assigned as needed using drag and drop functionality to route the signals to the TENs and UAPs. **Create and Edit Signal Sets** 1. Click on the *Signal Distribution* tab to open the page. 2. Select a set from the *Signal Sets* list and click the *Edit* button to edit an existing set. 3. Click on the *Add a New Signal Set* link to open the Add *Signal Set* page to create a new set.  4. Enter a Name for the signal set in the *Signal Set Name* field. 5. Click to select a channel from the *Available Channels* list or shift click to select multiple channels and drag them onto the *Assigned Channels* list.

Claim 1 – Element	Verizon / CommScope's Infringement



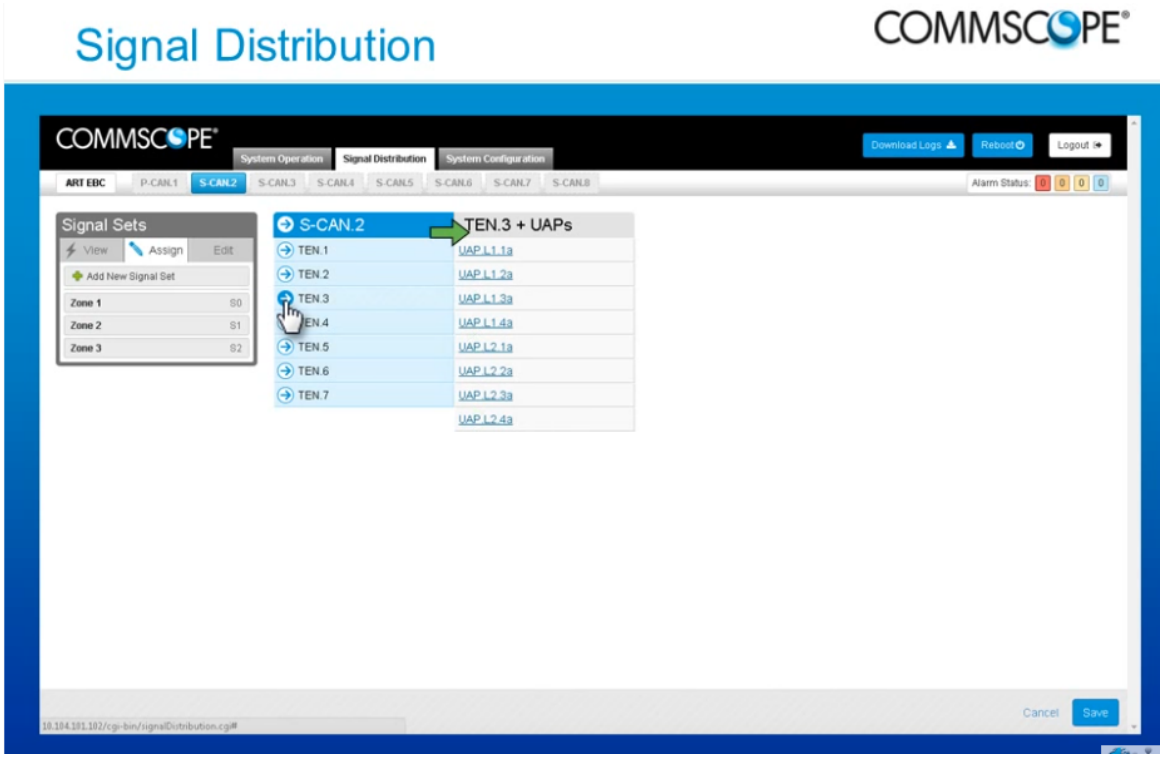
6. Click the *Save* button to save the Signal Set.

DALIVZN-000464-465.

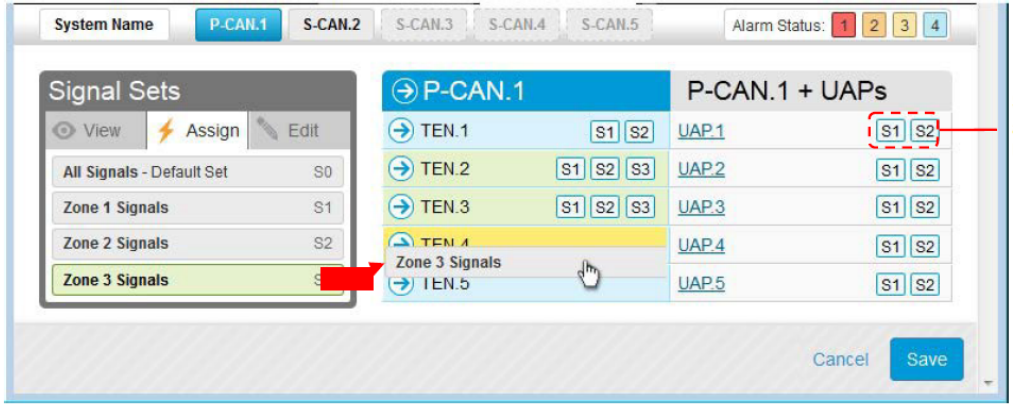
Further, CommScope's Era System "is an extension of the hardware and software architecture that CommScope originally introduced as ION-E" such that "ION-E and Era share the same hardware modules, system software and management systems" and "existing ION-E systems can be updated and expanded using Era components." See, e.g., DALIVZN-000428.

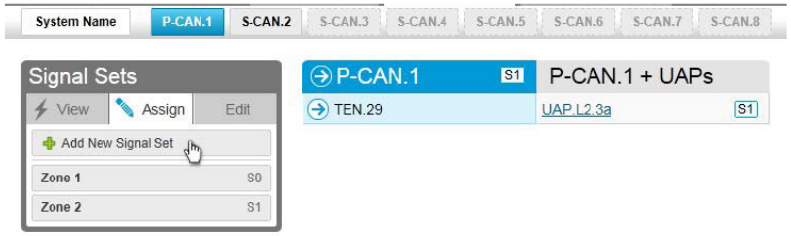
The Era System further provides for dynamic "capacity routing" which, on information and belief, dynamically changes the amount of radio resources between the first set of radio resources and a second set of radio resources.

Claim 1 – Element	Verizon / CommScope's Infringement
	• **Capacity can be dynamically shared across many buildings.** The solution adjusts levels to meet variable demand, thanks to its capacity routing capabilities. DALIVZN-000635. Further, CommScope's ION-E/ERA platform is described as "Flexible . . . Shift capacity to where and when you need it, all in software." *See, e.g.*, DALIVZN-000421.
[ELEMENT 1-H] wherein a number of radio resources in the first set of radio resources is different from a number of radio resources in the second set of radio resources; and	The Verizon / CommScope Accused Instrumentalities satisfy this claim element. CommScope's ION-E/ERA platform includes a baseband unit that is configured to send digital representations of a first and second set of radio resources, wherein a number of radio resources in the first set of radio resources is different from a number of radio resources in the second set of radio resources. CommScope's ION-E/ERA platform comprises a baseband unit (CAN) that allows the number of radio resources between the first set of radio resources to be different from the radio resources in the second set of radio resources. CommScope's ION-E/ERA allows for customizable signal sets with different numbers of radio resources per signal set: Specifically, CommScope's ION-E/ERA platform comprises software that allows for the creation of signal sets that are customized sets of radio resources. Multiple signal sets from different base stations can be created and assigned to either a remote unit (CAP or UAP) or a TEN. According to a webinar introduction to ION-E: "[W]e can send any signals to any of the UAPs. … The UAP can have only one assigned signal set. So we create signal sets from Zone 3, Zone 2 and Zone 1, and the signals that … comprise[ ] the signal sets are different based on these operators. So this would be the way we do that. We, for example, create a new signal set called Zone 1 and then select which channels go to … that signal set. And we do Zone 2 and Zone 3. So we can have the same sectors, same signals in multiple signal sets but only one signal set can go to any of the UAPs. You can either send the Zone 1, Zone 2, Zone 3 signal set … directly to a TEN, then it will be automatically be distributed to all of the UAPs that are connected to

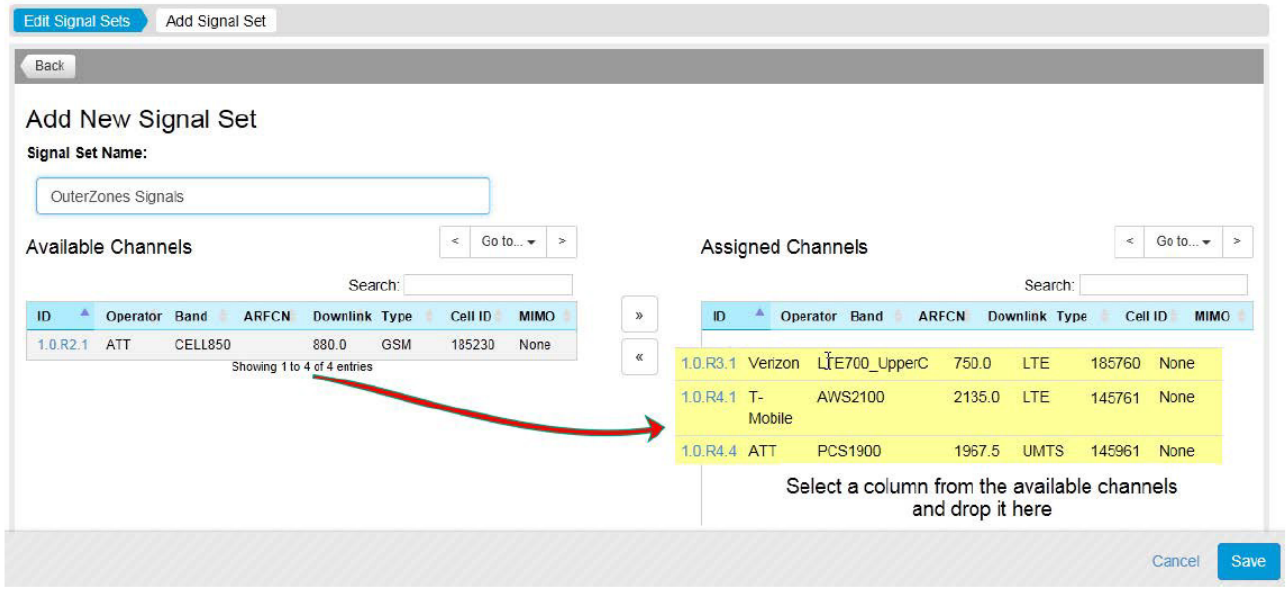
Claim 1 – Element	Verizon / CommScope's Infringement
	that TEN. This is probably how you would do that in most cases where you have a zone driven by a TEN." *See* Webinar Introduction to ION-E, Telecom Knowledge Share, Published July 22, 2016, available at https://www.youtube.com/watch?v=Kmw2qMlgLrU ("Webinar Introduction to ION E") at 23:32-24:52, last accessed June 8, 2022.  *Id.* Further, CommScope's ION-E/ERA platform's baseband unit (CAN) can send digital representations of a second set of radio resources to the first remote unit (CAP or UAP) at a second point in time for transmission through the antenna of the remote unit. CommScope's ION-E/ERA platform allows for the creation of different signal sets from base stations that comprise different radio resources. A second

Claim 1 – Element	Verizon / CommScope's Infringement
	set of radio resources may be sent to a first remote unit (CAP or UAP) at a different point in time from the first set. According to a CommScope webinar, "[w]e have a full control over each channel, we can turn channels on and off…and we can distribute the channels to any UAP with extreme flexibility, so any signal can go to any UAP… We create signal sets and then those signal sets can be sent via software or software command to them, to any UAP." Webinar Introduction to ION-E, Telecom Knowledge Share, Published July 22, 2016, available at https://www.youtube.com/watch?v=Kmw2qMlgLrU ("Webinar Introduction to ION E") at 22:21-22:48, last accessed June 8, 2022. In addition, multiple signal sets from different base stations can be created and assigned to remote units:

Claim 1 – Element	Verizon / CommScope's Infringement
	Assign Signal Sets (Direct signal traffic to TENs and UAPs) Signal Sets, which are a user-defined set of channels, can be quickly assigned to CANs and all UAPs assigned to them, TENs and all UAPs assigned to them, or to individual UAPs on the *Signal Distribution* page. 1. Click on the *Signal Distribution* tab to open the page. 2. Assign a signal set by: o Clicking on a signal set and dragging it onto the a TEN or UAP (set icons adjacent to the device name indicate the sets assigned to a TEN or UAP) o Clicking on a signal set to select it (green highlight) and then clicking on each TEN or UAP to which you wish to assign the signal set.  3. Click the *Save* button after you've assigned each signal set DALIVZN-000465.

Claim 1 – Element	Verizon / CommScope's Infringement
	5.5. Signal Distribution The ION-E uses signal sets to group the detected signals to simplify signal routing to the radiating elements throughout the system. First the user must create and define the signal sets by assigning channels to the sets. The signal sets are then assigned as needed using drag and drop functionality to route the signals to the TENs and UAPs. **Create and Edit Signal Sets** 1. Click on the *Signal Distribution* tab to open the page. 2. Select a set from the *Signal Sets* list and click the *Edit* button to edit an existing set. 3. Click on the *Add a New Signal Set* link to open the Add *Signal Set* page to create a new set.  4. Enter a Name for the signal set in the *Signal Set Name* field. 5. Click to select a channel from the *Available Channels* list or shift click to select multiple channels and drag them onto the *Assigned Channels* list.

Claim 1 – Element	Verizon / CommScope's Infringement

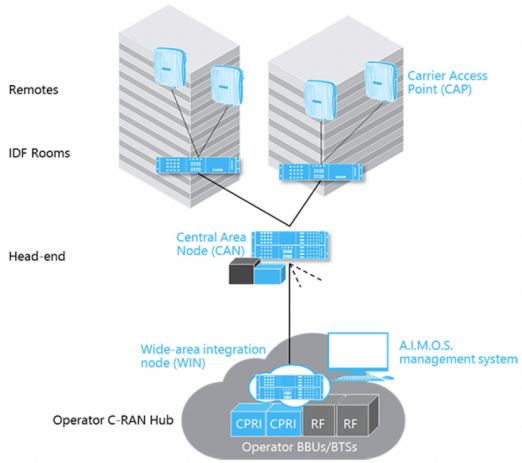


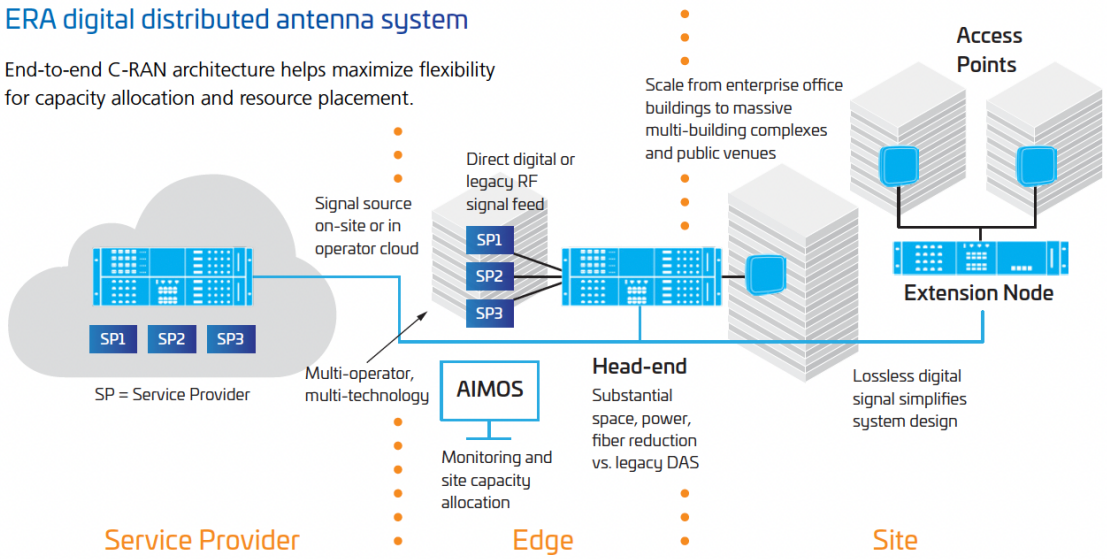
6. Click the *Save* button to save the Signal Set.

DALIVZN-000464-465.

Further, CommScope's Era System "is an extension of the hardware and software architecture that CommScope originally introduced as ION-E" such that "ION-E and Era share the same hardware modules, system software and management systems" and "existing ION-E systems can be updated and expanded using Era components." See, e.g., DALIVZN-000428.

The Era System further provides for dynamic "capacity routing" which, on information and belief, dynamically changes the amount of radio resources between the first set of radio resources and a second set of radio resources.

Claim 1 – Element	Verizon / CommScope's Infringement
	• **Capacity can be dynamically shared across many buildings.** The solution adjusts levels to meet variable demand, thanks to its capacity routing capabilities. DALIVZN-000635. Further, CommScope's ION-E/ERA platform is described as "Flexible . . . Shift capacity to where and when you need it, all in software." *See, e.g.*, DALIVZN-000421.
[ELEMENT 1-I] wherein the baseband unit is configured to receive digital signals from each of the plurality of remote units.	The Verizon / CommScope Accused Instrumentalities satisfy this claim element. CommScope's ION-E/ERA platform includes a baseband unit that is configured to receive digital signals from each of the plurality of remote units. CommScope's ION-E/ERA platform includes baseband units (CAN) that can both send and receive digital signals to and from the remote units. **ERA and ION-E** ERA is an extension of the hardware and software architecture that CommScope originally introduced as ION-E. Going forward, all new systems are ERA. Since ION-E and ERA share the same hardware modules, system software and management systems, existing ION-E systems can be updated and expanded using ERA components. 

Claim 1 – Element	Verizon / CommScope's Infringement
	DALIVZN-000428.  DALIVZN-000423.

Claim 2	Verizon / CommScope's Infringement
The system of claim 1 wherein the baseband unit is configured to packetize each digital representation of a radio resource.	The Verizon / CommScope Accused Instrumentalities satisfy this claim element. CommScope's ION-E/ERA platform's baseband unit is configured to packetize each digital representation of a radio resource. An Era and ION-E Software Guide explains that the CANs packetize the digital representations received from the signal source.

Claim 2	Verizon / CommScope's Infringement
	A 2018 CommScope document titled "Era C-RAN antenna system: In-building wireless capacity without constraints" discloses that in the Era system the host unit communicates using "Common Public Radio Interface (CPRI)." DALIVZN-000635-36 CPRI is a digital communications protocol that requires the formation of frames or packets and therefore packetizes digital representations of the radio resource signals. Common Public Radio Interface Specification V6.0 (2013). The CommScope webinar on the ION-E system architecture further explains: "On a high level we have [an] eNode B or the LTE base station connecting to a component called e-POI, or enhanced point of interface, which receives the signal and then has in the front QMA ports with a DIN connector in the back and a QMA connector in the front which then connects to our RF donor card which is part of our CAN, or central area node, and after that we convert the signals to software domain and do all the routing in the software domain." *See* Webinar Introduction to ION-E, Telecom Knowledge Share, Published July 22, 2016, available at https://www.youtube.com/watch?v=Kmw2qMlgLrU ("Webinar Introduction to ION E") at 13:45-14:25, last accessed June 8, 2022. "The CAN - where the RF signals are coming from the base station, received at the RF donor card, and then we manage the distribution of those signals to the UAPs, or to the TENs and to their UAPs in software domain. … CAN is the base station interface and that is where we manage the central signal distribution. We send any of the incoming signals to any of the UAPs." *Id.*

Claim 3	Verizon / CommScope's Infringement
The system of claim 1 wherein the digital representation of the first set of radio resources includes destination information identifying	The Verizon / CommScope Accused Instrumentalities satisfy this claim element. CommScope's ION-E/ERA platform meets the system of claim 1 wherein the digital representation of the first set of radio resources includes destination information identifying the first remote unit and the digital representation of the second set of radio resources includes destination information identifying the first remote unit.

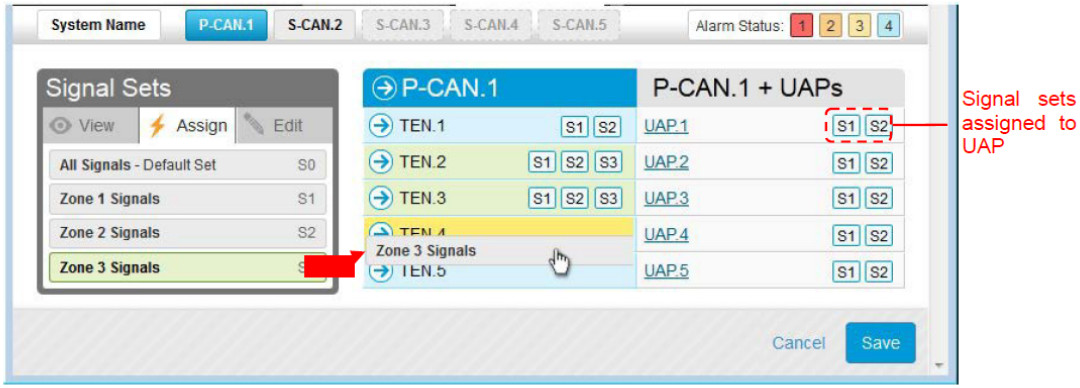
Claim 3	Verizon / CommScope's Infringement
the first remote unit and the digital representation of the second set of radio resources includes destination information identifying the first remote unit.	CommScope's ION-E/ERA platform, the digital representations of the radio resources are directed to specific individual remote access points (i.e., location information): For example, CommScope's ION-E/ERA platform comprises a base band unit (CAN) that allows for the creation of different signal sets from base stations that comprise different downlink channel signals. Within the software, a set of downlink channel signals may be sent to specific remote unit (CAP or UAP). According to a CommScope webinar, "[w]e have a full control over each channel, we can turn channels on and off…and we can distribute the channels to any UAP with extreme flexibility, so any signal can go to any UAP… We create signal sets and then those signal sets can be sent via software or software command to them, to any UAP." See Webinar Introduction to ION-E, Telecom Knowledge Share, Published July 22, 2016, available at https://www.youtube.com/watch?v=Kmw2qMlgLrU ("Webinar Introduction to ION E") at 22:21-22:48, last accessed June 8, 2022. An ION-E user manual further explains how digital signal sets ("digital representations") can be assigned and distributed to specific UAPs:

Claim 3	Verizon / CommScope's Infringement

Assign Signal Sets (Direct signal traffic to TENs and UAPs)

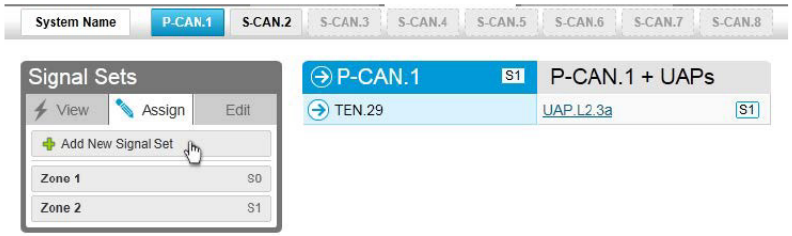
Signal Sets, which are a user-defined set of channels, can be quickly assigned to CANs and all UAPs assigned to them, TENs and all UAPs assigned to them, or to individual UAPs on the *Signal Distribution* page.

1. Click on the *Signal Distribution* tab to open the page.
2. Assign a signal set by:
   - Clicking on a signal set and dragging it onto the a TEN or UAP (set icons adjacent to the device name indicate the sets assigned to a TEN or UAP)
   - Clicking on a signal set to select it (green highlight) and then clicking on each TEN or UAP to which you wish to assign the signal set.

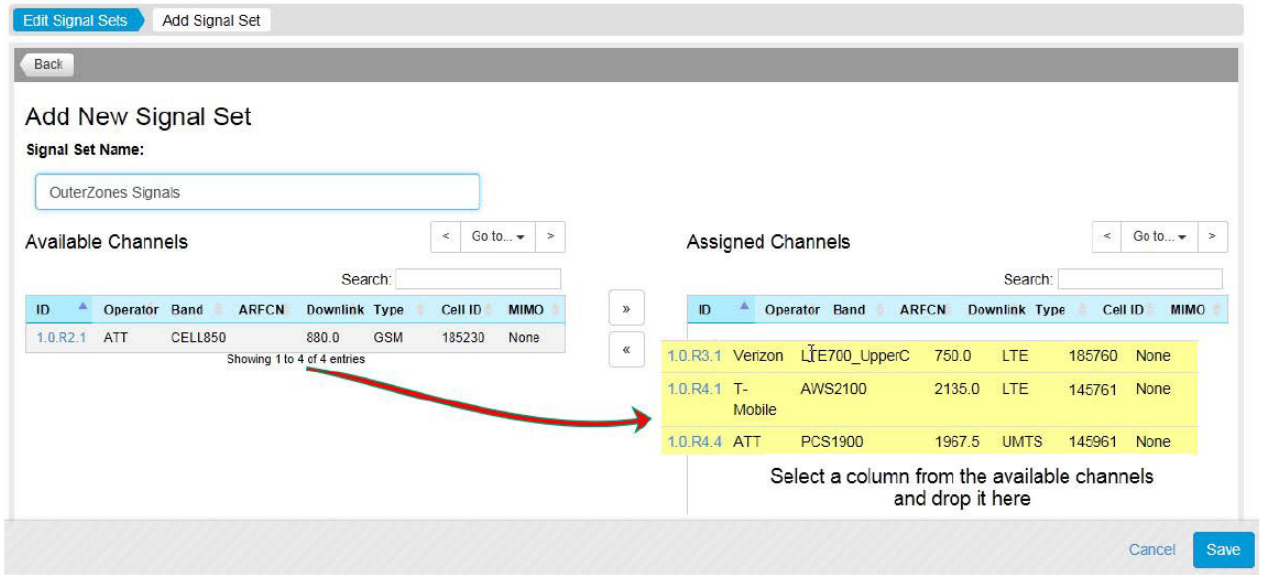


3. Click the *Save* button after you've assigned each signal set

DALIVZN-000465.

Claim 3	Verizon / CommScope's Infringement
	5.5. Signal Distribution The ION-E uses signal sets to group the detected signals to simplify signal routing to the radiating elements throughout the system. First the user must create and define the signal sets by assigning channels to the sets. The signal sets are then assigned as needed using drag and drop functionality to route the signals to the TENs and UAPs. **Create and Edit Signal Sets** 1. Click on the *Signal Distribution* tab to open the page. 2. Select a set from the *Signal Sets* list and click the *Edit* button to edit an existing set. 3. Click on the *Add a New Signal Set* link to open the Add *Signal Set* page to create a new set.  4. Enter a Name for the signal set in the *Signal Set Name* field. 5. Click to select a channel from the *Available Channels* list or shift click to select multiple channels and drag them onto the *Assigned Channels* list.

Claim 3	Verizon / CommScope's Infringement



6. Click the *Save* button to save the Signal Set.

DALIVZN-000464-465.

Further, CommScope's ION-E/ERA platform "[o]perates on standard IT cabling." *See, e.g.*, DALIVZN-000421. CommScope's ION-E/ERA platform also provides for dynamic "capacity routing" which, on information and belief, provides means for the radio resources directed to specific remote access points to be changed. *See, e.g.*, DALIVZN-000635.

CommScope's ION-E/ERA's Central Area Node (CAN) sends digital transmissions via CPRI and standard IT cabling. CPRI involves the use of packetized data including Control & Management Channel maps and encodes ethernet packets for transmission with destination information identifying the remote units. Further, both ethernet and IP protocols have destination information. For example, ethernet has Destination Mac Address (see e.g., Ethernet 802.3 frame protocol standard) while IPv4 and IPv6 have destination IP address (see e.g., Internet Protocol version 4 and Internet Protocol version 6 protocol standards).

Claim 4	Verizon / CommScope's Infringement
The system of claim 1 wherein the first set of radio resources is a subset of the plurality of radio resources and includes at least some radio resources from the first signal source and at least some radio resources from the second signal source.	The Verizon / CommScope Accused Instrumentalities satisfy this claim element. CommScope's ION-E/ERA platform meets the system of claim 1 wherein the first set of radio resources is a subset of the plurality of radio resources and includes at least some radio resources from the first signal source and at least some radio resources from the second signal source. *See* **Claim Elements 1-E**, **1-F**, and **1-G**.

Claim 8 - Element	Verizon / CommScope's Infringement
[PREAMBLE] A baseband controller for use in the transport of wireless communications, comprising:	To the extent the preamble is interpreted to be limiting, the Verizon / CommScope Accused Instrumentalities satisfies this preamble. On information and belief, and based on publicly available information, the Verizon / CommScope Accused Instrumentalities satisfy each and every limitation of claim 8 by providing a baseband controller for use in the transport of wireless communications. *See* **Claim 1**.
[ELEMENT 8-A] a plurality of interfaces to communicatively couple a baseband unit to a plurality of signal sources, including at least a first signal source and a second signal source;	The Verizon / CommScope Accused Instrumentalities satisfy this claim element. CommScope's ION-E/ERA platform includes a plurality of interfaces to communicatively couple a baseband unit to a plurality of signal sources, including at least a first signal source and a second signal source. *See* **Claim Element 1-D**.

Claim 8 - Element	Verizon / CommScope's Infringement
[ELEMENT 8-B] at least one interface to communicatively couple the baseband unit to a plurality of remote units, including at least a first remote unit;	The Verizon / CommScope Accused Instrumentalities satisfy this claim element. CommScope's ION-E/ERA platform includes at least one interface to communicatively couple the baseband unit to a plurality of remote units, including at least a first remote unit. *See* **Claim Elements 1-C**, **1-F**, **1-G**, and **1-I**.
[ELEMENT 8-C] wherein the baseband unit is configured to receive a plurality of radio resources from the first signal source and the second signal source;	The Verizon / CommScope Accused Instrumentalities satisfy this claim element. CommScope's ION-E/ERA platform includes a baseband unit configured to receive a plurality of radio resources from the first signal source and the second signal source. *See* **Claim Element 1-E**.
[ELEMENT 8-D] wherein the baseband unit is configured to send digital representations of a first set of radio resources to the first remote unit at a first point in time, the first set of radio resources for transmission at an antenna of the first remote unit;	The Verizon / CommScope Accused Instrumentalities satisfy this claim element. CommScope's ION-E/ERA platform includes a baseband unit configured to send digital representations of a first set of radio resources to the first remote unit at a first point in time, the first set of radio resources for transmission at an antenna of the first remote unit. *See* **Claim Element 1-F**.
[ELEMENT 8-E] wherein the baseband unit is configured to send digital representations of a second set of radio resources to the first remote unit at a second	The Verizon / CommScope Accused Instrumentalities satisfy this claim element. CommScope's ION-E/ERA platform includes a baseband unit configured to send digital representations of a second set of radio resources to the first remote unit at a second point in time, the second set of radio resources for transmission at the antenna of the first remote unit. *See* **Claim Element 1-G**.

Claim 8 - Element	Verizon / CommScope's Infringement
point in time, the second set of radio resources for transmission at the antenna of the first remote unit; and	
[ELEMENT 8-F] wherein a number of radio resources in the first set of radio resources is different from a number of radio resources in the second set of radio resources.	The Verizon / CommScope Accused Instrumentalities satisfy this claim element. CommScope's ION-E/ERA platform includes a baseband unit that is configured to send digital representations of a first and second set of radio resources, wherein a number of radio resources in the first set of radio resources is different from a number of radio resources in the second set of radio resources. *See* **Claim Element 1-H**.

Claim 9	Verizon / CommScope's Infringement
The baseband controller of claim 8 wherein the baseband unit is configured to packetize each digital representation of a radio resource.	The Verizon / CommScope Accused Instrumentalities satisfy this claim element. CommScope's ION-E/ERA platform meets the baseband controller of claim 8 wherein the baseband unit is configured to packetize each digital representation of a radio resource. *See* **Claim 2**.

Claim 10	Verizon / CommScope's Infringement
The baseband controller of claim 8 wherein the digital representation of the first set of radio resources includes destination information identifying the first remote unit and the digital representation of the second set of radio resources includes destination information identifying the first remote unit.	The Verizon / CommScope Accused Instrumentalities satisfy this claim element. CommScope's ION-E/ERA platform meets the baseband controller of claim 8 wherein the digital representation of the first set of radio resources includes destination information identifying the first remote unit and the digital representation of the second set of radio resources includes destination information identifying the first remote unit. *See* **Claim 3**.

Claim 11	Verizon / CommScope's Infringement
The baseband controller of claim 8 wherein the first set of radio resources is a subset of the plurality of radio resources and includes at least some radio resources from the first signal source and at least some radio resources from the second signal source.	The Verizon / CommScope Accused Instrumentalities satisfy this claim element. CommScope's ION-E/ERA platform meets the baseband controller of claim 8 wherein the first set of radio resources is a subset of the plurality of radio resources and includes at least some radio resources from the first signal source and at least some radio resources from the second signal source. *See* **Claim Elements 1-E**, **1-F**, and **1-G**.

Claim 13	Verizon / CommScope's Infringement
The baseband controller of claim 8 wherein the plurality of radio resources include a first composite signal from the first signal source and a second composite signal from the second signal source, and the baseband unit is configured to form the digital representation of the first set of radio resources from a first subset of the first composite signal and a second subset of the second composite signal.	The Verizon / CommScope Accused Instrumentalities satisfy this claim element. CommScope's ION-E/ERA platform meets the baseband controller of claim 8 wherein the plurality of radio resources include a first composite signal from the first signal source and a second composite signal from the second signal source, and the baseband unit is configured to form the digital representation of the first set of radio resources from a first subset of the first composite signal and a second subset of the second composite signal. *See* **Claim Elements 1-E**, **1-F**, and **1-G**.

Claim 14 - Element	Verizon / CommScope's Infringement
[PREAMBLE] A method for providing digital signals in a Distributed Antenna System (DAS), comprising:	To the extent the preamble is interpreted to be limiting, the Verizon / CommScope Accused Instrumentalities satisfies this preamble. On information and belief, and based on publicly available information, the Verizon / CommScope Accused Instrumentalities satisfy each and every limitation of claim 14 by performing a method for providing digital signals in a Distributed Antenna System (DAS). *See* **Claim Element 1**. Further, this method is infringed by Verizon / CommScope when the Verizon / CommScope Accused Instrumentalities are tested and/or used by Verizon / CommScope.

Claim 14 - Element	Verizon / CommScope's Infringement
[ELEMENT 14-A] receiving at a baseband unit, from a plurality of signal sources including at least a first signal source and a second signal source, a plurality of radio resources;	The Verizon / CommScope Accused Instrumentalities satisfy this claim element. CommScope's ION-E/ERA platform receives at a baseband unit, from a plurality of signal sources including at least a first signal source and a second signal source, a plurality of radio resources. *See* **Claim Element 1-E**.
[ELEMENT 14-B] transmitting from the baseband unit, at a first point in time, a digital representation of a first set of radio resources to a first remote unit, the first set of radio resources for transmission at an antenna of the first remote unit;	The Verizon / CommScope Accused Instrumentalities satisfy this claim element. CommScope's ION-E/ERA platform transmits from the baseband unit, at a first point in time, a digital representation of a first set of radio resources to a first remote unit, the first set of radio resources for transmission at an antenna of the first remote unit. *See* **Claim Element 1-F**.
[ELEMENT 14-C] transmitting from the baseband unit, at a second point in time, a digital representation of a second set of radio resources to the first remote unit, the second set of radio resources for transmission at the antenna of the first remote unit;	The Verizon / CommScope Accused Instrumentalities satisfy this claim element. CommScope's ION-E/ERA platform transmits from the baseband unit, at a second point in time, a digital representation of a second set of radio resources to the first remote unit, the second set of radio resources for transmission at the antenna of the first remote unit. *See* **Claim Element 1-G**.

Claim 14 - Element	Verizon / CommScope's Infringement
[ELEMENT 14-D] wherein a number of radio resources in the first set of radio resources is different from a number of radio resources in the second set of radio resources.	The Verizon / CommScope Accused Instrumentalities satisfy this claim element. CommScope's ION-E/ERA platform performs the method of claim 14, wherein a number of radio resources in the first set of radio resources is different from a number of radio resources in the second set of radio resources. *See* **Claim Element 1-H**.

Claim 15	Verizon / CommScope's Infringement
The method of claim 14 wherein the digital representation of the first set of radio resources includes destination information identifying the first remote unit and the digital representation of the second set of radio resources includes destination information identifying the second remote unit.	The Verizon / CommScope Accused Instrumentalities satisfy this claim element. CommScope's ION-E/ERA platform performs the method of claim 14 wherein the digital representation of the first set of radio resources includes destination information identifying the first remote unit and the digital representation of the second set of radio resources includes destination information identifying the second remote unit. *See* **Claim 3**.

Claim 16	Verizon / CommScope's Infringement
The method of claim 14 wherein the first set of radio resources is a subset of the plurality of radio resources and includes at least some radio resources	The Verizon / CommScope Accused Instrumentalities satisfy this claim element. CommScope's ION-E/ERA platform performs the method of claim 14 wherein the first set of radio resources is a subset of the plurality of radio resources and includes at least some radio resources from the first signal source and at least some radio resources from the second signal source. *See* **Claim Elements 1-E**, **1-F**, and **1-G**.

Claim 16	Verizon / CommScope's Infringement
from the first signal source and at least some radio resources from the second signal source.	Further, this method is infringed by Verizon / CommScope when the Verizon / CommScope Accused Instrumentalities are tested and/or used by Verizon / CommScope.

Claim 18	Verizon / CommScope's Infringement
The method of claim 14 wherein the plurality of radio resources include a first composite signal from the first signal source and a second composite signal from the second signal source, the method further comprising forming, at the baseband unit, the digital representation of the first set of radio resources from a first subset of the first composite signal and a second subset of the second composite signal.	The Verizon / CommScope Accused Instrumentalities satisfy this claim element. CommScope's ION-E/ERA platform performs the method of claim 14 wherein the plurality of radio resources include a first composite signal from the first signal source and a second composite signal from the second signal source, the method further comprising forming, at the baseband unit, the digital representation of the first set of radio resources from a first subset of the first composite signal and a second subset of the second composite signal. *See* **Claim Elements 1-E**, **1-F**, and **1-G**. Further, this method is infringed by Verizon / CommScope when the Verizon / CommScope Accused Instrumentalities are tested and/or used by Verizon / CommScope.

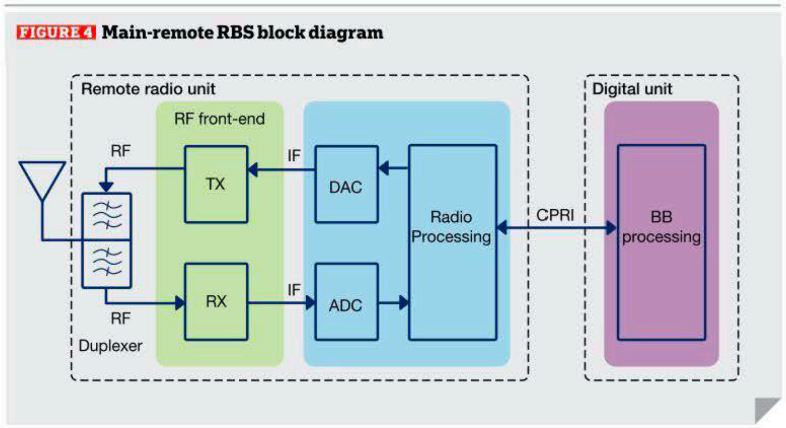
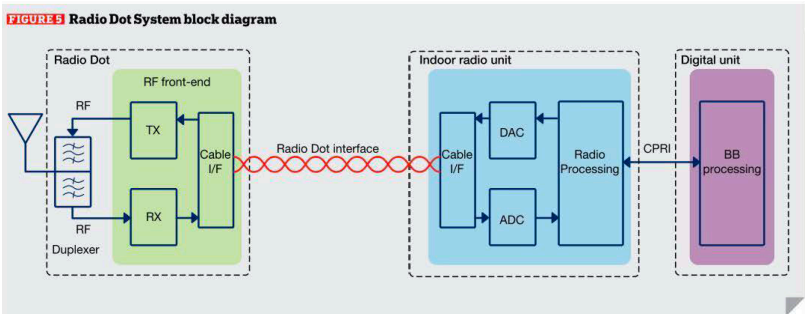
Claim 19	Verizon / CommScope's Infringement
The method of claim 14 further comprising packetizing, at the baseband unit, at least a	The Verizon / CommScope Accused Instrumentalities satisfy this claim element. CommScope's ION-E/ERA platform performs the method of claim 14 further comprising packetizing, at the baseband unit, at least a subset of the plurality of radio resources. *See* **Claim 2**.

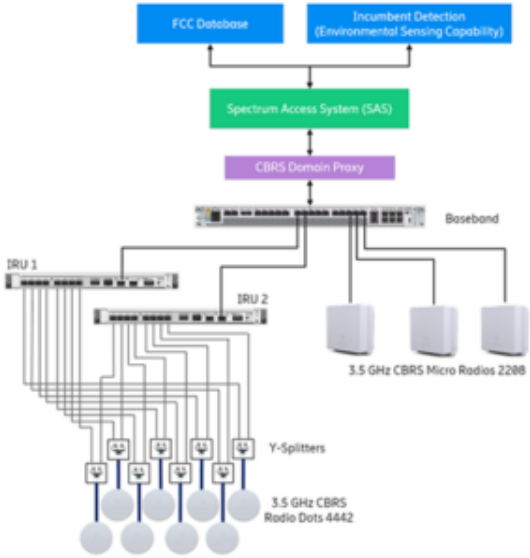
Claim 19	Verizon / CommScope's Infringement
subset of the plurality of radio resources.	Further, this method is infringed by Verizon / CommScope when the Verizon / CommScope Accused Instrumentalities are tested and/or used by Verizon / CommScope.

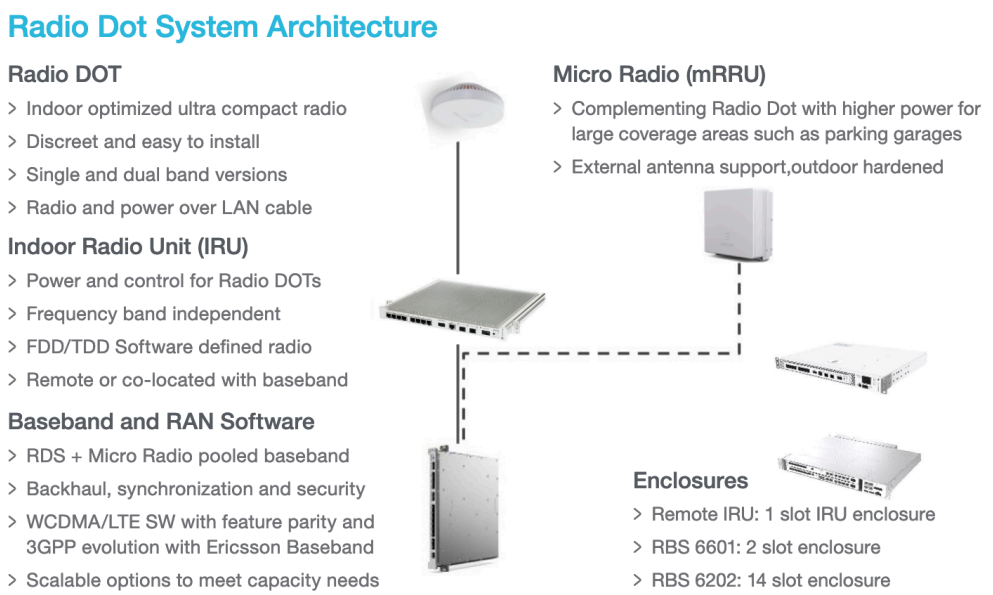
Exhibit C

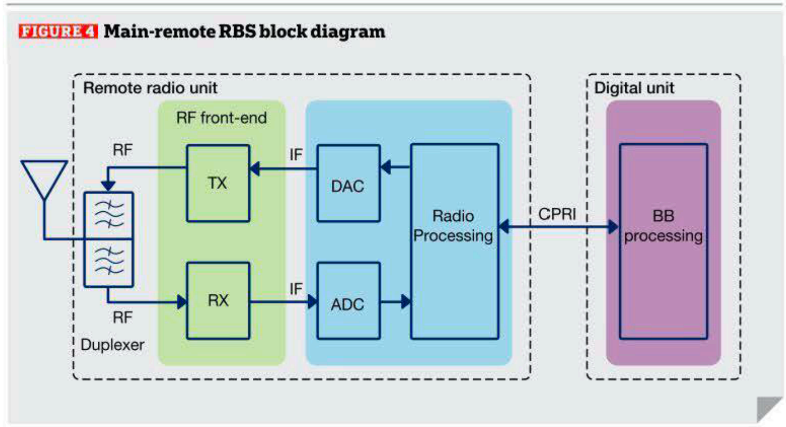
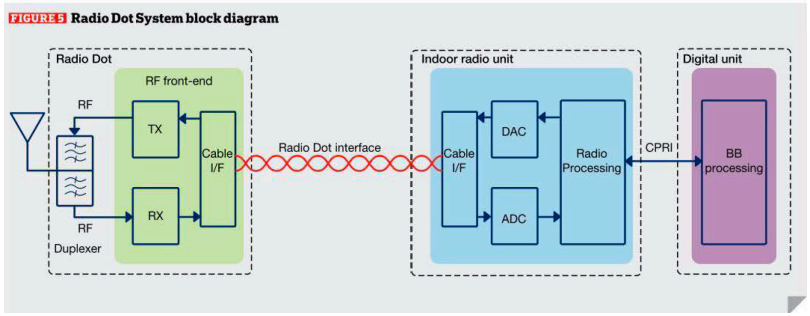
Plaintiff Dali Wireless Inc. ("Dali") contends that Defendants Cellco Partnership d/b/a Verizon Wireless, Verizon Corporate Services Group Inc., Verizon Online LLC (collectively, "Verizon"), Ericsson Inc, and Telefonaktiebolaget LM Ericsson (collectively, "Ericsson") (altogether, "Verizon / Ericsson") infringe the below-identified claims of Dali's U.S. Patent No. 8682338 (the "'338 Patent") by deploying, operating, maintaining, testing, and using Verizon's LTE and 5G networks which include equipment relating to small cell wireless solutions, such as Ericsson's Radio Dot System (including, but not limited to, the Digital Unit (DU), Indoor Radio Units (IRU) and Radio Dots (RD)), cabling and switches, and any software running thereon) (collectively, "Verizon / CommScope Accused Instrumentalities"). The specific components, systems, and constructs identified in this chart are for exemplary purposes only and Dali reserves all rights to supplement as additional components, systems, and constructs become known through discovery, as well as after Verizon / Ericsson produces documents and source code and/or the Court construes any terms from the claims of the '338 Patent. Claims 1 and 2 are infringed under 35 U.S.C. § 271(a) at least when Verizon / Ericsson uses the Verizon / Ericsson wireless solutions.

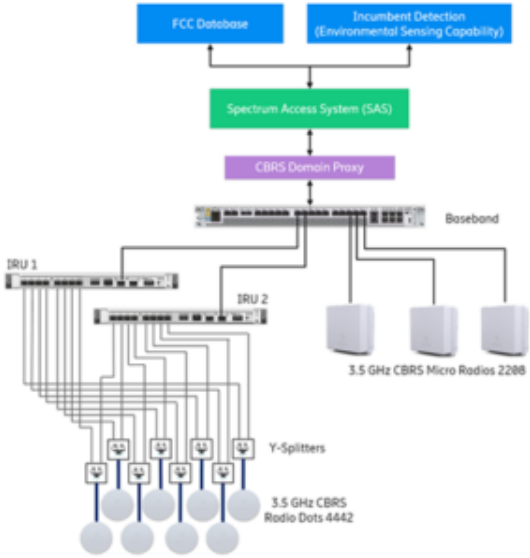
Claim 1 – Element	Verizon / Ericsson's Infringement
[PREAMBLE] A method for routing and switching RF signals comprising:	To the extent that the Court deems the preamble of Claim 1 to be limiting, Verizon / Ericsson's wireless solutions meets this claim element. For example, Ericsson's Radio Dot System "combines centralized baseband and radio units with visually low-impact antennas. Ericsson innovations enable RF signal, power and control over standard shielded LAN cables for cost-effective deployment with minimal business disruption. DALIVZN-0002085-292. Moreover, Ericsson's Radio Dot System includes "centralized radios [which] provide pooled capacity and design flexibility, dynamically meeting demand wherever it occurs in real time while increasing spectral and hardware efficiency of the system." *Id.* Further, the wireless solution routes and switches RF signals in the downlink, from the operator's network to the user equipment (UE) using the Ericsson's Radio Dot System and in the uplink from the user equipment (UE) to the operator's network. Further, this method is infringed by Verizon / Ericsson when the small cell wireless solutions are tested and/or used by Verizon / Ericsson.

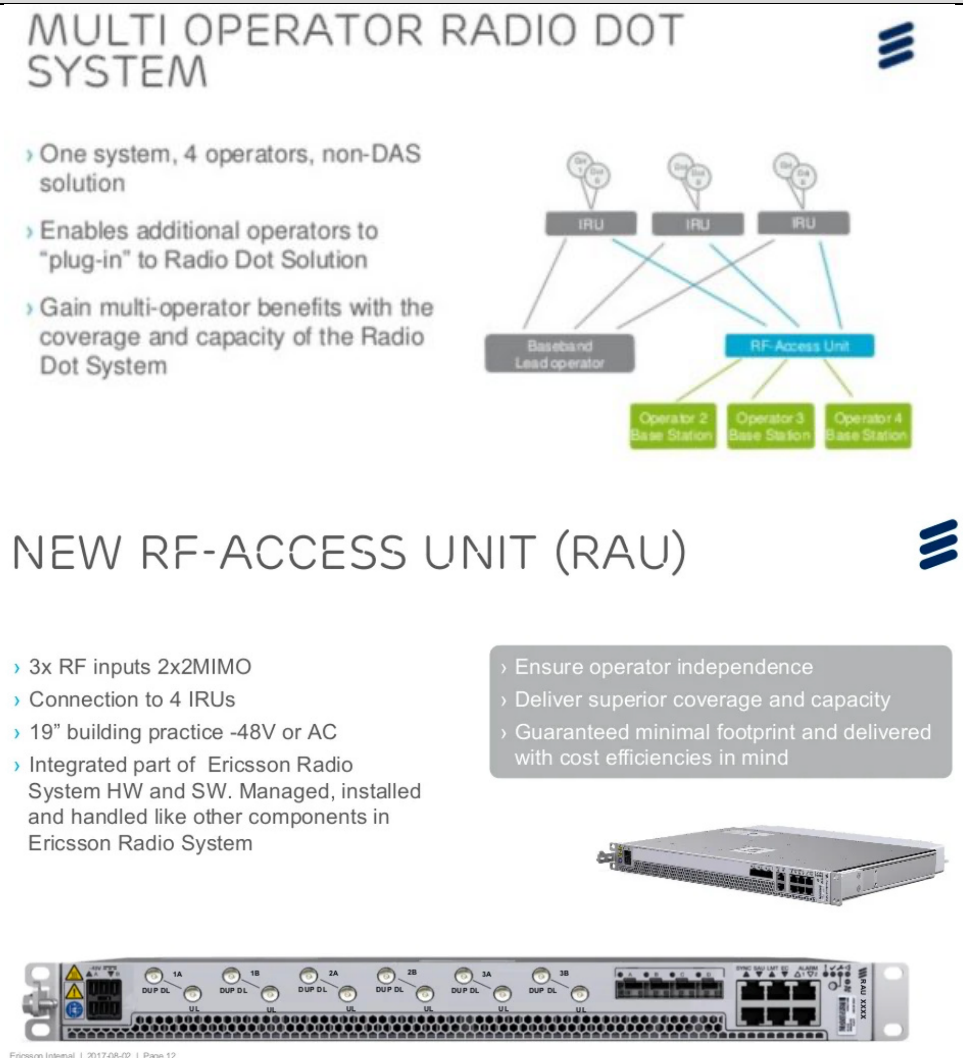
Claim 1 – Element	Verizon / Ericsson's Infringement
[ELEMENT 1-A] providing one or more remote radio units, each remote radio unit configured to transmit one or more downlink RF signals and to receive one or more uplink RF signals;	Verizon / Ericsson's wireless solutions meet this claim element. Ericsson's Radio Dot System provides one or more remote radio units, each remote radio unit configured to transmit one or more downlink RF signals and to receive one or more uplink RF signals. For example, in the Verizon / Ericsson's Radio Dot System, the system includes one or more remote radio units, such as Radio Dots with Indoor Radio Units (IRUs) as shown below:   DALIVZN-000001-10.

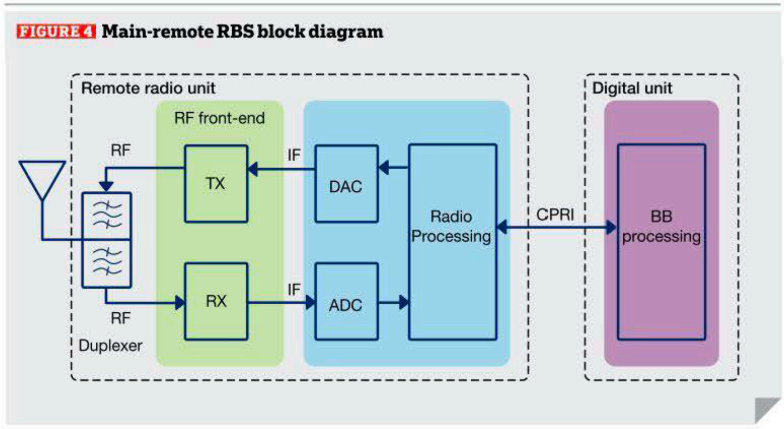
Claim 1 – Element	Verizon / Ericsson's Infringement
	Remote radio units also include Radio Dots that do not require an IRU, such as the CBRS Micro Radio as shown below or the Micro Radio (mRRU): As another example, as shown below, the Ericsson Radio Dot System includes a "Baseband" which is a digital access unit configured to communicates with the IRU, Radio Dots, and/or CBRS Micro Radios:  DALIVZN-000295.

Claim 1 – Element	Verizon / Ericsson's Infringement
	 DALIVZN-000285-292. Further, each remote radio unit is configured to transmit one or more downlink RF signals and to receive one or more uplink RF signals. For example, Ericsson's Single Band Radio Dot includes RF hardware that provides "2x2 MIMO, Tx/Rx diversity" and Ericsson's Dual Band Radio Dot includes RF hardware that provides "2x2 MIMO, Tx/Rx diversity (per band". As shown above, the functionality of Verizon / Ericsson's Radio Dots RF hardware include transmitting RF signals (shown as "TX") and receiving uplink RF signals (shown as "RX"). *See e.g.,* DALIVZN-000001-10.
[ELEMENT 1-B] providing at least one digital access unit configured to communicate with the one or more remote radio units;	Verizon / Ericsson's wireless solutions meet this claim element. Ericsson's Radio Dot System provides at least one digital access unit configured to communicate with the one or more remote radio units.

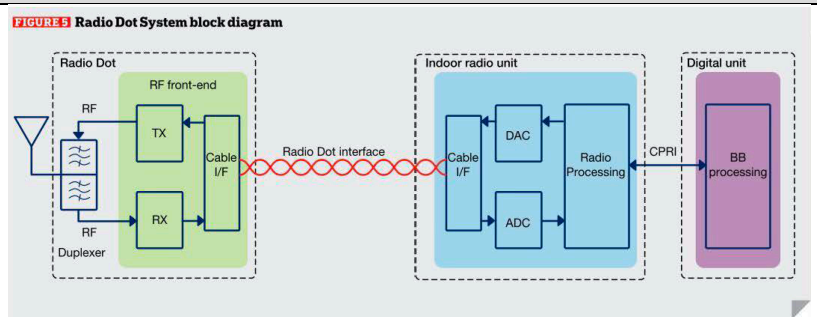
Claim 1 – Element	Verizon / Ericsson's Infringement
	For example, in the Verizon / Ericsson's Radio Dot System, the DU is the "signal source of the Radio Dot System and provides the pooled baseband resources for the building(s) or area." DALIVZN-0002085-292. Further, the DU is configured to communicate via CPRI with remote radio units, including Radio Dots and IRUs as shown below:   DALIVZN-000001-10.

Claim 1 – Element	Verizon / Ericsson's Infringement
	As another example, as shown below, the Ericsson Radio Dot System includes a "Baseband" which is a digital access unit configured to communicate with the IRU, Radio Dots, and/or CBRS Micro Radios:  DALIVZN-000295. As yet another example, as shown below, the Ericsson Radio Dot System includes a "RF Access Unit" which is a digital access unit configured to communicate with the IRU and Radio Dots.

Claim 1 – Element	Verizon / Ericsson's Infringement
	 DALIVZN-000609-632.

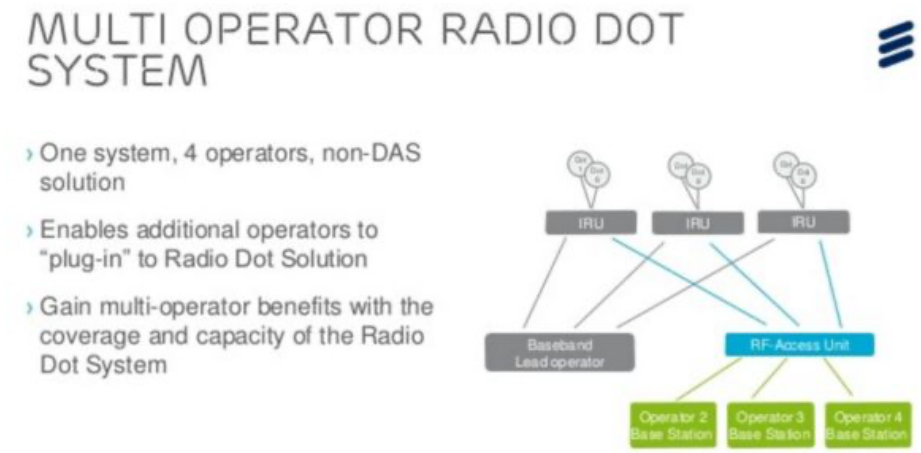
Claim 1 – Element	Verizon / Ericsson's Infringement
[ELEMENT 1-C] translating the uplink and downlink signals between RF and base band as appropriate;	Verizon / Ericsson's wireless solutions meet this claim element. Ericsson's Radio Dot System translates the uplink and downlink signals between RF and base band as appropriate. For example, the Verizon / Ericsson wireless solution consists of Radio Dots, Baseband Units (DU) and Indoor Radio Units (IRU) and these components translate the uplink and downlink signals between RF and base band as appropriate. As shown in the Figure below, for example, the Indoor Radio unit contains "ADC" and "DAC" and "Radio Processing" for converting signals as appropriate and the Digital Unit contains "BB processing" for converting signals as appropriate. Further, the Radio Dot System is configured to translate uplink and downlink signals between RF and base band as appropriate as shown below: 

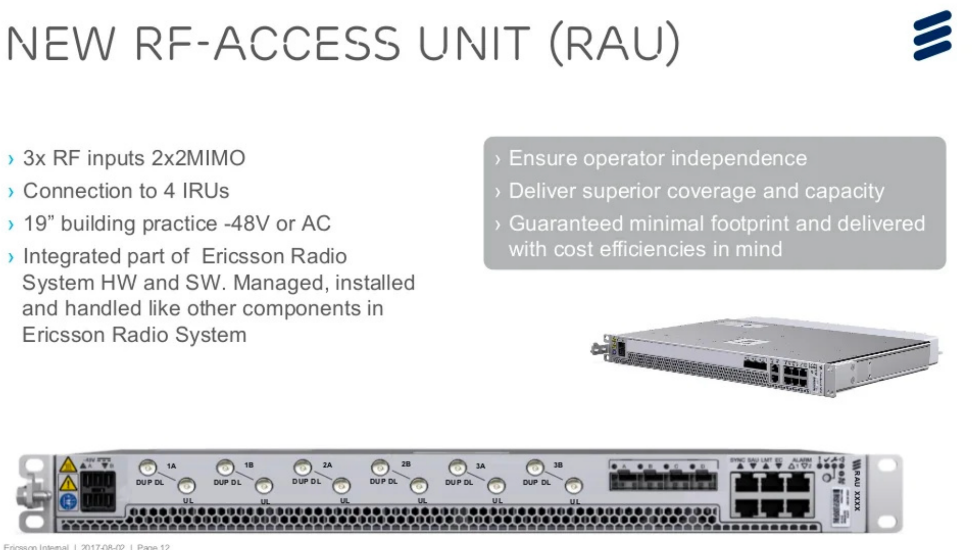
Claim 1 – Element	Verizon / Ericsson's Infringement



DALIVZN-000001-10.

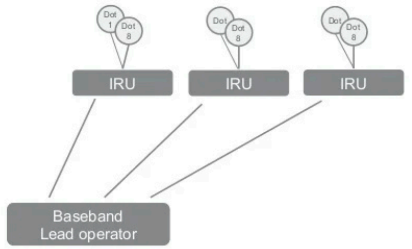
As yet another example, as shown below, the Ericsson Radio Dot System includes a "RF Access Unit" as part of the Radio Dot System and is configured to translate uplink and downlink signals between RF and base band as appropriate:

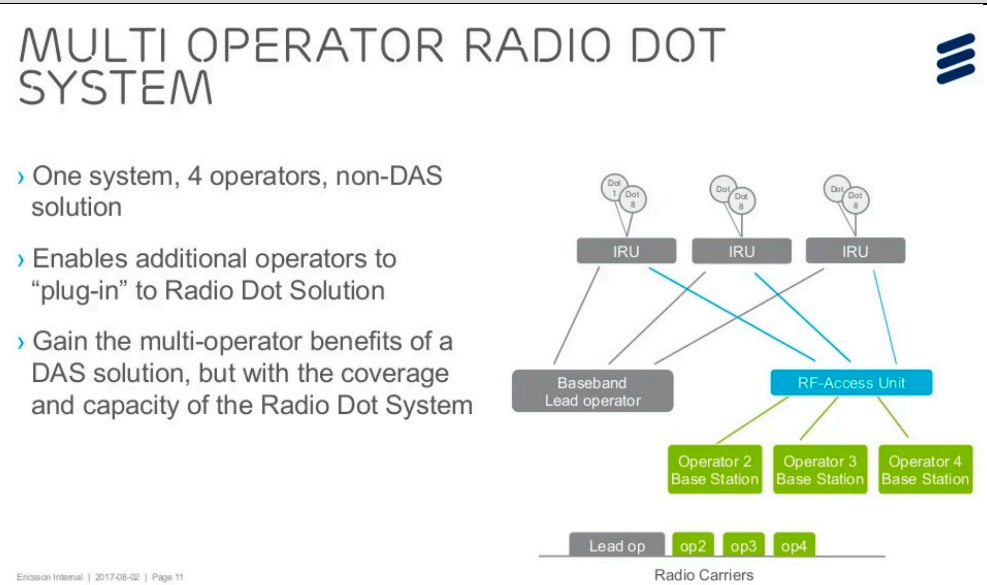


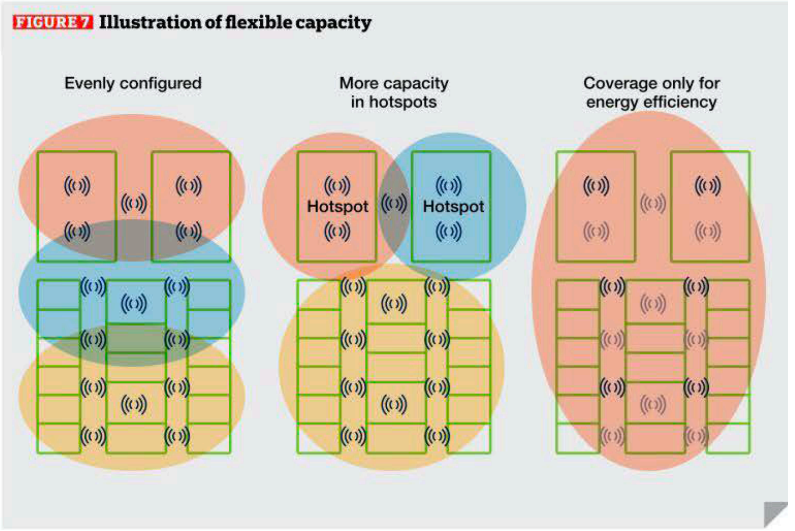
Claim 1 – Element	Verizon / Ericsson's Infringement
	 DALIVZN-000609-632.
[ELEMENT 1-D] packetizing the uplink and downlink base band signals, wherein the packetized signals correspond to a plurality of carriers;	Verizon / Ericsson's wireless solutions meet this claim element. Ericsson's Radio Dot System packetizes the uplink and downlink base band signals, wherein the packetized signals correspond to a plurality of carriers. For example, upon information and belief, the Digital Unit (DU) and/or Baseband unit and/or RF-Access Unit (RAU) and Indoor Radio Unit (IRU) and/or Radio Points (e.g., CBRS Micro Radio) can be connected via electrical or fiber and communicate via Digital CPRI and digital CPRI is a packetized communications standard.

Claim 1 – Element	Verizon / Ericsson's Infringement
	Indoor Radio Unit The Indoor Radio Unit (IRU) is a component in the Radio Dot System (RDS). The IRU must be used together with Dots to have full radio functionality. The IRU has three purposes: • Provides an interface to the Digital Unit (DU) or Baseband unit through a CPRI cable. • Provides signaling and power interface to the Dot over the Radio Dot Interface (RDI). • Collects external alarms and transmits them to the Digital Unit. Depending on the type of IRU, up to 8 or 16 Dots can be connected to a single IRU.  DALIVZW-000599-600 *Digital unit* The DU provides pooled baseband processing for the system. To manage the connected radios, the DU uses the CPRI standard for the DU-IRU interface to transfer synchronization, radio signals and O&M signals. When collocated with the IRU, an electrical CPRI interface is used, and for remote connection with the IRU, a CPRI fiber interface is used. DALIVZN-000001-10.

Claim 1 – Element	Verizon / Ericsson's Infringement
	The Digital Down Converters present in each of RRU**1**, RRU**2**, RRU**3** and RRU**4** are dynamically software-configured as described previously so that uplink signals of the appropriate desired signal format(s) present at the receive antenna ports of the respective RRU**1**, RRU**2**, RRU**3** and RRU**4** are selected based on the desired uplink band(s) to be processed and filtered, converted and transported to the appropriate uplink output port of either DAU**1** or DAU**2**. The DAUs and RRUs frame the individual data packets corresponding to their respective radio signature using the Common Public Interface Standard (CPRI). Other Interface standards are applicable provided they uniquely identify data packets with respective RRUs. Header information is transmitted along with the data packet which indentifies the RRU and DAU that corresponds to the individual data packet. '338 Patent at 8:48-62 Specifically in the downlink, upon information and belief, the Digital Unit (DU) and/or Baseband unit and/or RF-Access Unit packetizes base band signals, and those packetized signals correspond to a plurality of carriers. For example, the carriers correspond as part of a resource block mapping or as part of carrier aggregation. Specifically in the uplink, upon information and belief, the Indoor Radio Unit (IRU) and/or Radio Dot (RD) packetizes base band signals, and those packetized signals correspond to a plurality of carriers. For example, the carriers correspond as part of a resource block mapping or as part of carrier aggregation.

Claim 1 – Element	Verizon / Ericsson's Infringement
	SINGLE OPERATOR RADIO DOT SYSTEM › Traditional RDS deployment › Can be expanded to Multi Operator RDS  Ericsson Internal | 2017-08-02 | Page 10

Claim 1 – Element	Verizon / Ericsson's Infringement
	 DALIVZN-000609-632.
[ELEMENT 1-E] configuring each remote radio unit to receive or transmit a respective subset of the plurality of carriers, each respective subset of the plurality of carriers including a number of carriers;	Verizon / Ericsson's wireless solutions meet this claim element. Ericsson's Radio Dot System configures each remote radio unit to receive or transmit a respective subset of the plurality of carriers, each respective subset of the plurality of carriers including a number of carriers. For example, Verizon / Ericsson's wireless solution "has addressed the 5G mid-band and high-band coverage limitations by developing a flexible 5G Carrier Aggregation solution which supports control and data traffic on the uplink using lower frequency band which increases coverage, and on the downlink with a mid or high-frequency band which increases capacity and data throughput." DALIVZW-000472-488. As a result, Ericsson's Radio Dot System can be configured to receive or transmit a respective subset of the plurality of carriers, with each respective subset of the plurality of carriers including a number of carriers.

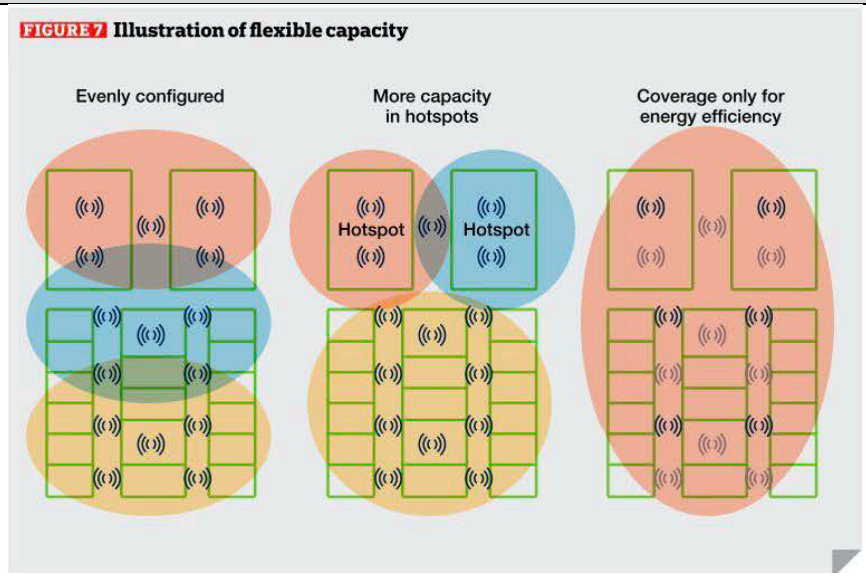
Claim 1 – Element	Verizon / Ericsson's Infringement
	As shown below, the Verizon / Ericsson system is designed and used for "flexible capacity" which enables configuring and reconfiguring remote radio units to "provide capacity in a more flexible way – by shifting available capacity from one place to another on demand."  DALIVZN-000001-10. As explained in the Ericsson Review, the digital access unit "provides pooled baseband processing for the system. To *manage* the connected radios, the DU uses the CPRI standard for the DU-IRU interface to transfer synchronization, radio signals, and O&M signals." DALIVZN-000001-10.
[ELEMENT 1-F] reconfiguring each remote radio unit by: determining a load percentage for each remote radio unit; and increasing or decreasing the number of carriers in the respective subset of	Verizon / Ericsson's wireless solutions meet this claim element. On information and belief, Verizon / Ericsson's wireless solutions reconfigure each remote radio unit by: determining a load percentage for each remote radio unit; and increasing or decreasing the number of carriers in the respective subset of the plurality of carriers based on the load percentage. For example, Verizon / Ericsson's Radio Dot System can dynamically adjust to maintain efficiency: "centralized radios provide pooled capacity and design flexibility, dynamically

Claim 1 – Element	Verizon / Ericsson's Infringement
the plurality of carriers based on the load percentage; and	meeting demand wherever it occurs in real time while increasing spectral and hardware efficiency of the system." DALIVZN-0002085-292. Moreover, Verizon / Ericsson explains that "[t]he capability to configure, scale, and reconfigure logical nodes through software commands enables the RAN to dynamically adjust to changing traffic conditions, hardware faults, as well as new service requirements." DALIVZN-000293-294. Verizon / Ericsson also states that "[w]ithout RDS, high traffic demand generated indoors consumes a substantial amount of the radio resources of the surrounding outdoor macro cells. Deploying RDS in large high-traffic enterprises offloads the macro layer and serves the indoors more efficiently." DALIVZN-0002085-292. As another example, Ericsson's U.S. Pat. No. 9,591,590, which describes the Accused Radio Dot System, describes load balancing between cells. U.S. Pat. No. 9,591,590 at 7:1-3, 16:58-63. As another example, Ericsson Review describes "flexible capacity" of "dynamically cell reconfiguration" based on load on the system, and upon information and belief, this is done based on load percentage:

Claim 1 – Element	Verizon / Ericsson's Infringement
	Evolution to flexible capacity Indoor traffic demand tends to vary over time and space, particularly in enterprise and public environments. For example, traffic demand regularly increases over the course of a day in areas where many people gather, such as in conference rooms, cafeterias, and lobbies. This high traffic demand disappears once people leave. Evenly distributing high capacity in a building for its peak use is not the best approach, as this tends to result in overprovisioning capacity.

Claim 1 – Element	Verizon / Ericsson's Infringement
	As the RDS uses centralized baseband architecture, it can provide capacity in a more flexible way – by shifting available capacity from one place to another on demand. This can be implemented through dynamic cell reconfiguration (such as, traditional cell splitting and combining) or by using combined cell SDMA technology. For LTE Rel-10/11 UEs, combined cell SDMA is the desired approach for dynamic SDMA operations in one cell involving all the radios. This approach enables efficient use of the available baseband capacity, optimizing both network capacity and mobility, resulting in an improved user experience. Overlapping radios can be turned off (dynamically) to save energy. Figure 7 shows three typical scenarios assuming three-cell baseband capability. Here, for illustration purposes only, a dynamic cell reconfiguration approach is used.

Claim 1 – Element	Verizon / Ericsson's Infringement
	In the first scenario, three cells are distributed evenly to cover the indoor area, and each cell contains five radios. The second scenario covers the same space but includes two traffic hotspots. Here, the top cell is split into two smaller cells to provide higher capacity to the hotspots, while the rest of the area is covered by a single larger cell using the remaining baseband resources. In the third scenario, traffic demand is very low – a common situation late at night and early in the morning. To provide capacity for this low traffic scenario, the orignal three cells are combined into one large cell with only the selected radios active. All other radios (including the baseband resources involved) are inactive to save energy.

Claim 1 – Element	Verizon / Ericsson's Infringement
	 DALIVZN-000001-10.
[ELEMENT 1-G] routing and switching the packetized signals among the one or more remote radio units via the at least one digital access unit according to a result of the reconfiguring.	Verizon / Ericsson's wireless solutions meet this claim element. Ericsson's Radio Dot system routes and switches the packetized signals among the one or more remote radio units via the at least one digital access unit according to a result of the reconfiguring. For example, Verizon / Ericsson's Radio Dot System provides pooled capacity that is managed by the digital access unit and which can be reassigned based on network requirements: "centralized radios provide pooled capacity and design flexibility, dynamically meeting demand wherever it occurs in real time while increasing spectral and hardware efficiency of the system." DALIVZN-0002085-292. Moreover, the digital access unit "is the signal source of the Radio Dot System and provides the pooled baseband resources for the building(s) or area." *Id.* This allows for reconfiguring the routing and switching of packetized signals among the one or more remote radio units. As explained in the Ericsson Review, the digital access unit "provides pooled baseband processing for the system. To *manage* the connected radios, the DU *uses the CPRI*

Claim 1 – Element	Verizon / Ericsson's Infringement
	standard for the DU-IRU interface to *transfer synchronization, radio signals, and O&M signals.*" *See* DALIVZN-000001-10.

Claim 2	Verizon / Ericsson's Infringement
The method of claim 1 wherein each carrier corresponds to a respective RF band.	Verizon / Ericsson's wireless solutions meets this claim element. *See* **Claim 1**, *supra.* As described above, infringement occurs when reconfiguring based on load. The adjustment of carriers occurs altering the resource block mapping as part of load balancing, flexible capacity, and/or carrier aggregation. RBUs are resource block units which are associated with carriers in LTE systems with a group of resource blocks being part of a RF band. *See, e.g.,* TS 36.211 9.1.0 at 13:

5.2.3 Resource blocks

A physical resource block is defined as N_{symb}^{UL} consecutive SC-FDMA symbols in the time domain and N_{sc}^{RB} consecutive subcarriers in the frequency domain, where N_{symb}^{UL} and N_{sc}^{RB} are given by Table 5.2.3-1. A physical resource block in the uplink thus consists of $N_{symb}^{UL} \times N_{sc}^{RB}$ resource elements, corresponding to one slot in the time domain and 180 kHz in the frequency domain.

Table 5.2.3-1: Resource block parameters.

Configuration	N_{sc}^{RB}	N_{symb}^{UL}
Normal cyclic prefix	12	7
Extended cyclic prefix	12	6

The relation between the physical resource block number n_{PRB} in the frequency domain and resource elements (k,l) in a slot is given by

$$n_{PRB} = \left\lfloor \frac{k}{N_{sc}^{RB}} \right\rfloor$$

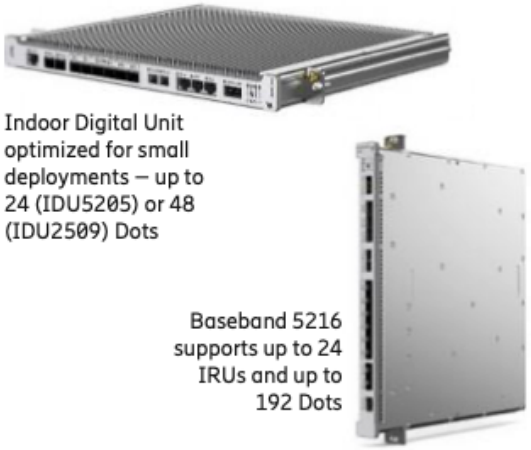
Exhibit D

Plaintiff Dali Wireless Inc. ("Dali") contends that Defendants Cellco Partnership d/b/a Verizon Wireless, Verizon Corporate Services Group Inc., Verizon Online LLC (collectively, "Verizon"), Ericsson Inc, and Telefonaktiebolaget LM Ericsson (collectively, "Ericsson") (altogether, "Verizon / Ericsson") infringe the below-identified claims of Dali's U.S. Patent No. 10,334,499 (the '499 Patent) by deploying, operating, maintaining, testing, and using Verizon's LTE and 5G networks which include equipment relating to small cell wireless solutions, such as Ericsson's Radio Dot System (including, but not limited to, the Digital Unit (DU), Indoor Radio Units (IRU) and Radio Dots (RD), CBRS Micro Radios, and mRRUs), cabling and switches, and any software running thereon) (collectively, the "Verizon / Ericsson Accused Instrumentalities"). The specific components, systems, and constructs identified in this chart are for exemplary purposes only and Dali reserves all rights to supplement as additional components, systems, and constructs become known through discovery, as well as after Verizon / Ericsson produces documents and source code and/or the Court construes any terms from the claims of the '499 Patent. Claims 1-4, 8, 9, 10, 11, 13-15, 16, and 18-19 are infringed under 35 U.S.C. § 271(a) when Verizon / Ericsson uses the Verizon / Ericsson Accused Instrumentalities.

Claim 1 – Element	Verizon / Ericsson's Infringement
[PREAMBLE] A system for transporting wireless communications, comprising:	To the extent the preamble is interpreted to be limiting, the Verizon / Ericsson Accused Instrumentalities satisfies this preamble. On information and belief, and based on publicly available information, the Verizon / Ericsson Accused Instrumentalities satisfy each and every limitation of claim 1 by providing system for transporting wireless communications. For example, Ericsson's Radio Dot System "combines centralized baseband and radio units with visually low-impact antennas. Ericsson innovations enable RF signal, power and control over standard shielded LAN cables for cost-effective deployment with minimal business disruption. *See, e.g.*, DALIVZN-0002085-292. Moreover, Ericsson's Radio Dot System includes "centralized radios [which] provide pooled capacity and design flexibility, dynamically meeting demand wherever it occurs in real time while increasing spectral and hardware efficiency of the system." *Id.* Ericsson's multiband Radio Dot System for CBRS "combine carriers to over improved network speeds, including support for 4G and 5G on a single cable. Service providers can leverage pre-existing fiber to make stable networks." DALIVZN-000295.

Claim 1 – Element	Verizon / Ericsson's Infringement
[ELEMENT 1-A] a baseband unit;	The Verizon / Ericsson Accused Instrumentalities satisfy this claim element. Ericsson's Radio Dot System includes a baseband unit. For example, in the Verizon / Ericsson's Radio Dot System, the system includes one or more base band units, such as Digital Units (DUs) as shown below. Ericsson describes its Radio Dot System as a "complete end-to-end solution including the RF signal source. RDS consists of the Radio Dots, Baseband Units (DU) and Indoor Radio Unit(s) (IRU). The DU and IRU can be connected by fiber or co-located and connected through Digital CPRI cable" and that "[t]he Baseband is the signal source of the Radio Dot System and provides the pooled baseband resources for the building(s) or area." RDS Solution Components RDS is a complete end-to-end solution including the RF signal source. RDS consists of the Radio Dots, Baseband Units (DU) and Indoor Radio Unit(s) (IRU). The DU and IRU can be connected by fiber or co-located and connected through Digital CPRI cable. The Dot requires a standard CAT6/CAT6A shielded LAN cable for both connectivity and power. This design yields up to 60% reduced cabling cost and up to 70% faster install time compared to DAS, making it more cost-effective for the operator and less disruptive to end customers. **Radio Dot:** The remotely powered Radio Dot contains the power amplifier and band filter and is the only frequency-dependent component of the complete RDS architecture. New frequencies can be added to the system by adding or swapping Dots. Single and dual band Dots are designed for fast and flexible deployment. The quantity of Dots required is dependent on coverage and performance criteria and will range from 4,000 to 10,000 square feet per Dot. Because each Dot is connected to the same baseband, there is no interference between them, simplifying optimization and ensuring exceptional overall throughput and end user experience.  *See, e.g.*, DALIVZN-000288.

Claim 1 – Element	Verizon / Ericsson's Infringement

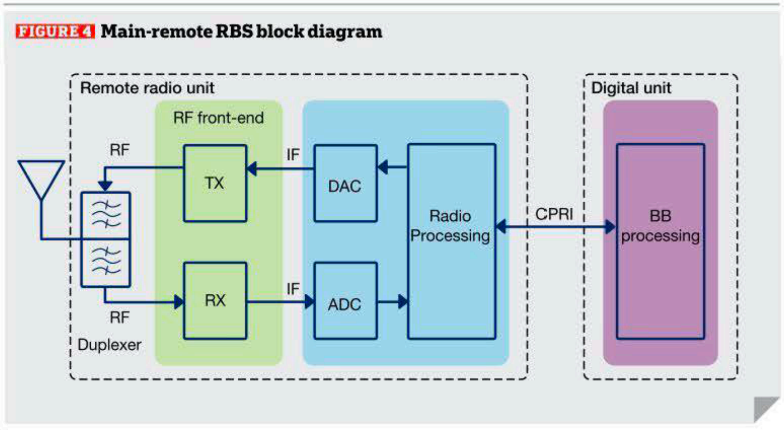


Multiple options for RF signal source or Digital Unit (DU)

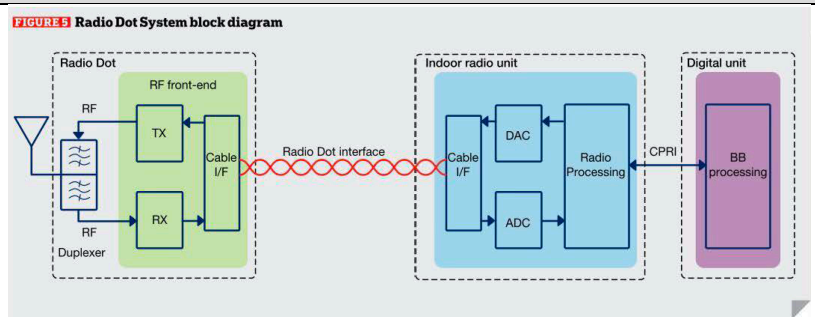
Digital Unit (DU): The Baseband is the signal source of the Radio Dot System and provides the pooled baseband resources for the building(s) or area. The DU delivers feature parity and roadmap evolution with the macro network and supports key coordination features such as Carrier Aggregation and Combined Cell, vital for multi-antenna indoor deployments. As new features are added to the Ericsson RAN software, they are automatically available in every radio dot system deployment. The Baseband also provides synchronization and transport security functionality, and aggregates the RDS traffic onto a common backhaul connection.

Multiple options are available to optimize capacity and cost for specific deployments. These range from the cost-effective IDU5205 supporting up to 24 Dots to the large Baseband 5216 that supports up to 192 Dots with multiple options in between.

See, e.g., DALIVZN-000290.

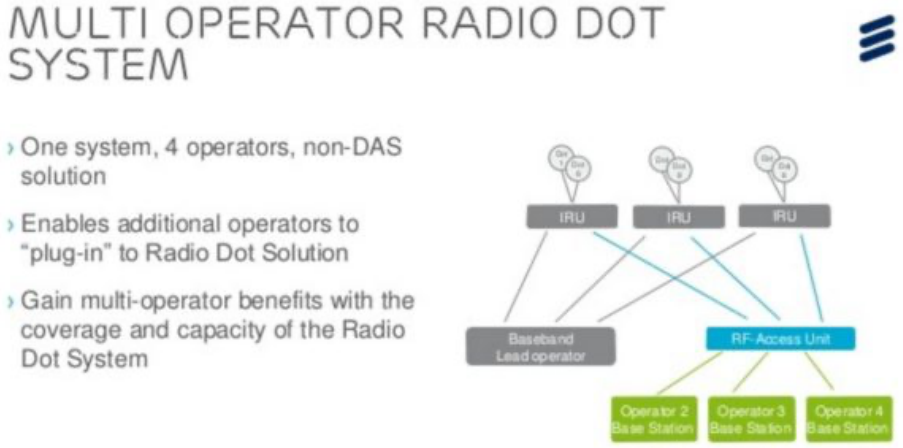


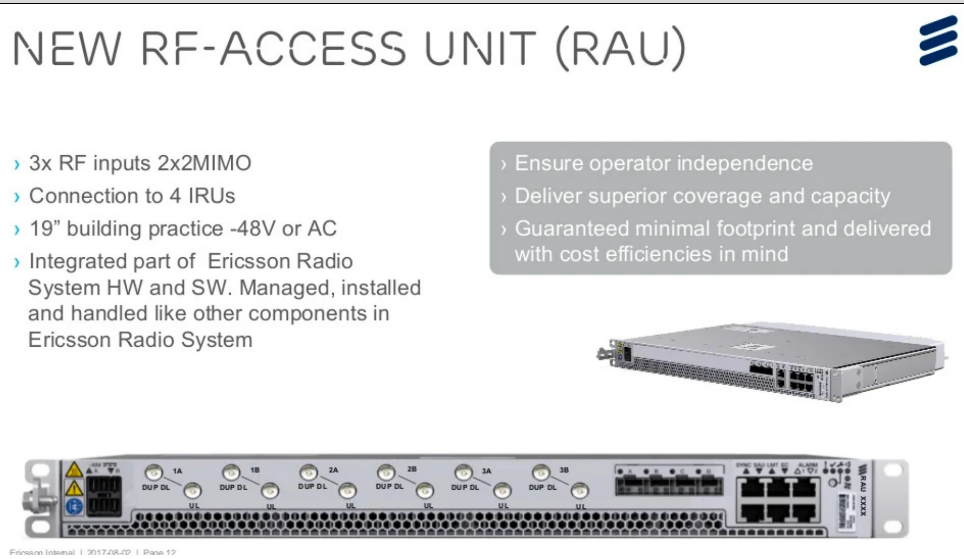
Claim 1 – Element	Verizon / Ericsson's Infringement

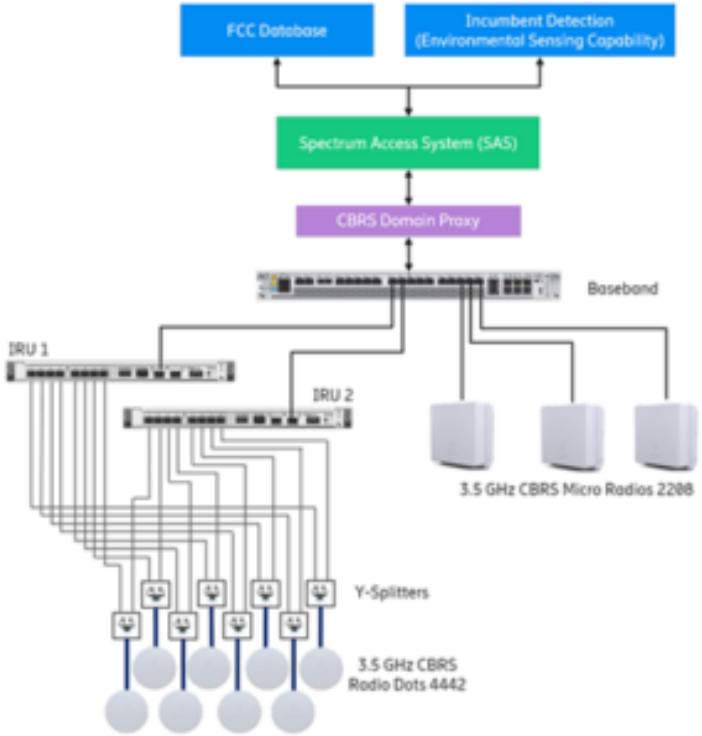


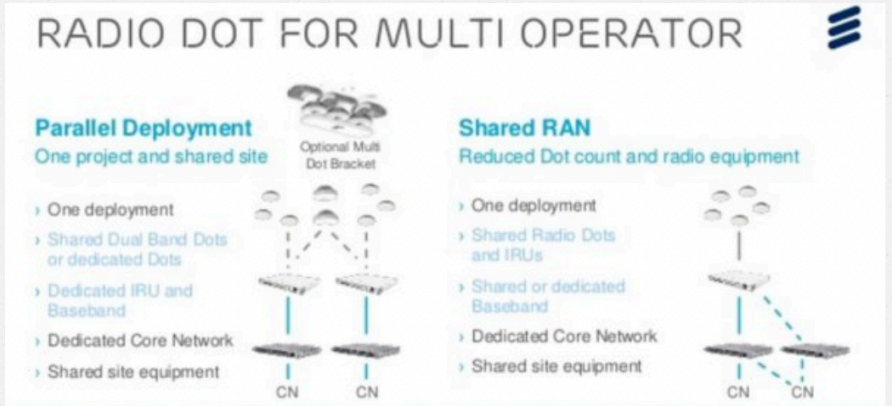
See DALIVZN-000001-10 at Fig. 4 and Fig. 5.

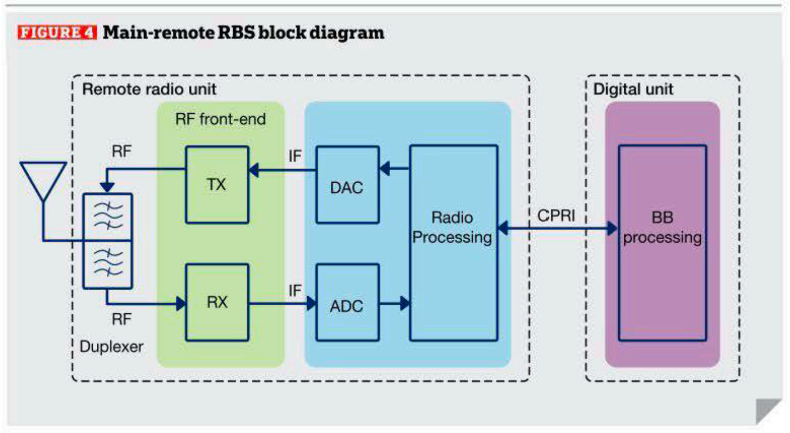
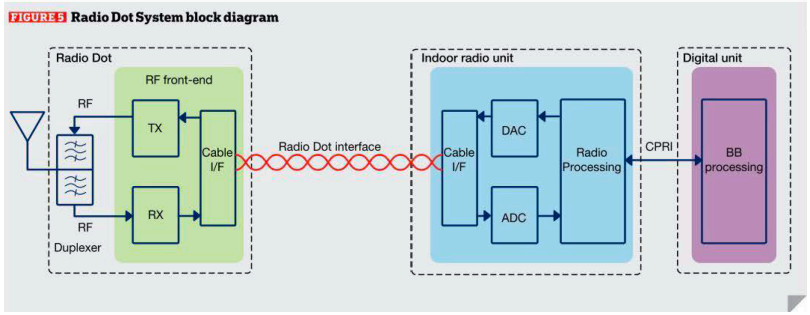
As yet another example, as shown below, the Ericsson Radio Dot System includes a "RF Access Unit" which is a baseband unit configured to communicate with the IRU and Radio Dots.

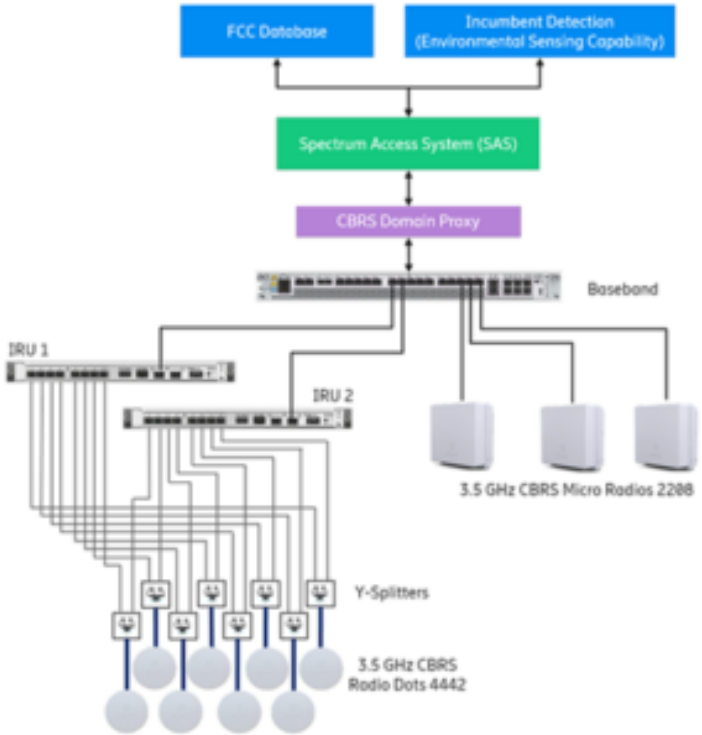


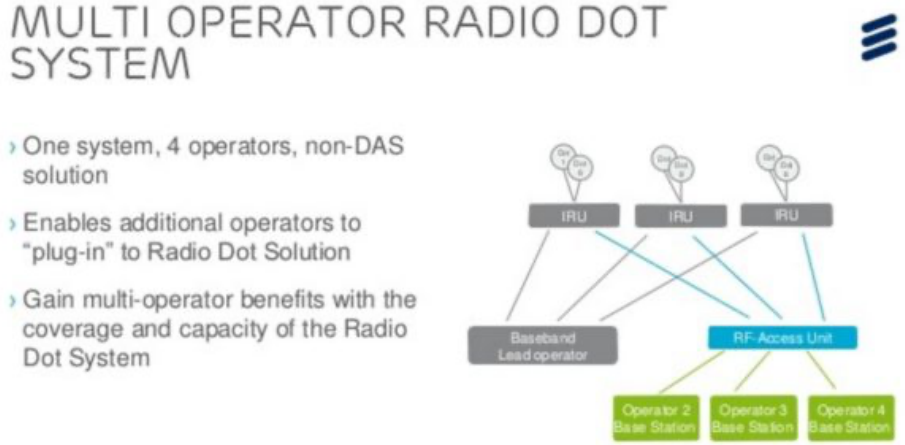
Claim 1 – Element	Verizon / Ericsson's Infringement
	 DALIVZN-000609-632. As another example, as shown below, the Ericsson Radio Dot System includes a "Baseband" which is a baseband unit configured to communicates with the IRU, Radio Dots, or CBRS Micro Radios:

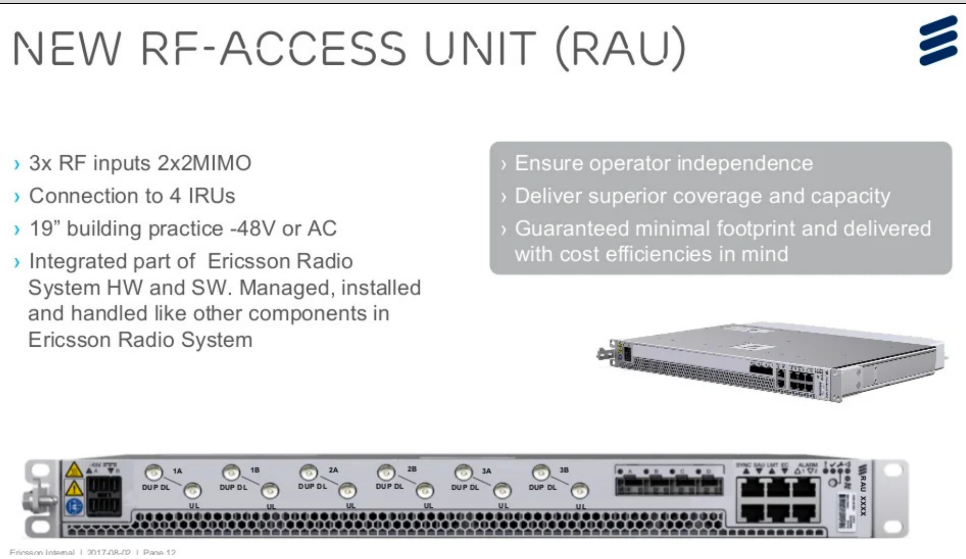
Claim 1 – Element	Verizon / Ericsson's Infringement
	 DALIVZN-000295.
[ELEMENT 1-B] a plurality of signal sources, including at least a first signal source and a second signal source;	The Verizon / Ericsson Accused Instrumentalities satisfy this claim element. Ericsson's Radio Dot System includes a plurality of signal sources, including at least a first signal source and a second signal source. For example, Ericsson's "Dual Band Dot enables multi-operator deployments." DALIVZN-000239.

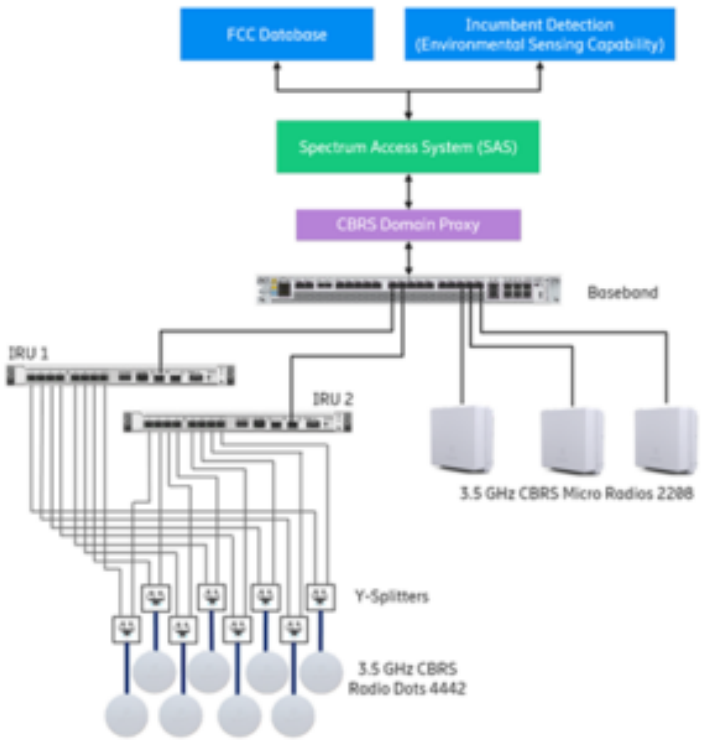
Claim 1 – Element	Verizon / Ericsson's Infringement
	First – parallel deployments with each operator using its own dedicated baseband, IRU and Dots. These Dots can be housed in the same enclosures (the new enclosures known as the multi-dot bracket) to tidy things up a bit.  Parallel or shared RAN options Secondly – a multi-operator deployment using a shared baseband and IRU, over the same network of distributed radio heads, using MORAN (Multi Operator Radio Access Network) or MOCN (Multi Operator Core Network) network sharing capabilities. Thirdly, a multi-operator Dot solution where operators provide multiple RF sources to the same Dot system. They do this by feeding baseband capacity to a new access unit from Ericsson, the RF Access Unit (RAU). This new RAU can support three 2×2 MIMO RF inputs, and can be connected on the other side to four IRUs, which then feed the shared Dot remote radioheads. DALIVZN-000559-60.
[ELEMENT 1-C] a plurality of remote units, including at least a first	The Verizon / Ericsson Accused Instrumentalities satisfy this claim element. Ericsson's Radio Dot System includes a plurality of remote units, including at least a first remote unit and a second remote unit.

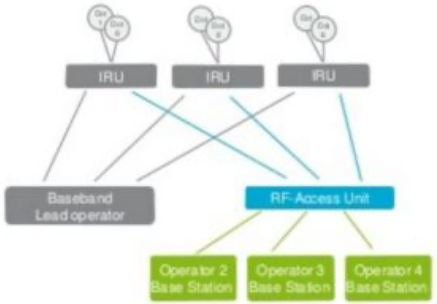
Claim 1 – Element	Verizon / Ericsson's Infringement
remote unit and a second remote unit;	For example, in the Verizon / Ericsson's Radio Dot System, the system includes one or more remote radio units, such as Radio Dots with Indoor Radio Units (IRUs) as shown below:   *See* DALIVZN-000001-10 at Fig. 4 and Fig. 5. Remote radio units also include Radio Dots that do not require an IRU, such as the CBRS Micro Radio as shown below or the Micro Radio (mRRU).

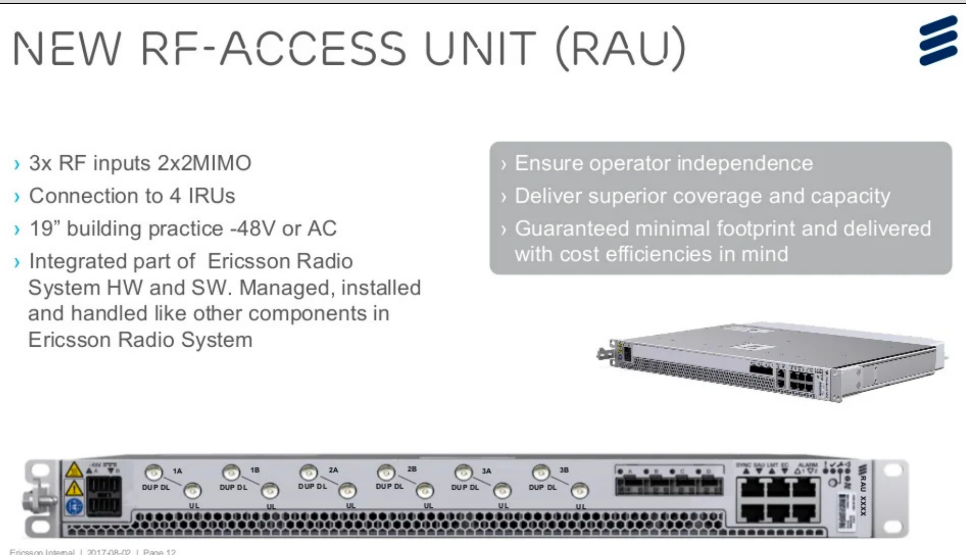
Claim 1 – Element	Verizon / Ericsson's Infringement
	As another example, as shown below, the Ericsson Radio Dot System includes a "Baseband" which is a baseband unit configured to communicates with the IRU, Radio Dots, or CBRS Micro Radios:  DALIVZN-000295.
[ELEMENT 1-D] wherein the baseband unit comprises a plurality of interfaces to communicatively couple the baseband unit to the plurality of signal sources;	The Verizon / Ericsson Accused Instrumentalities satisfy this claim element. Ericsson's Radio Dot System includes a baseband unit that comprises a plurality of interfaces to communicatively couple the baseband unit to the plurality of signal sources. *See* **Claim Element 1-B**.

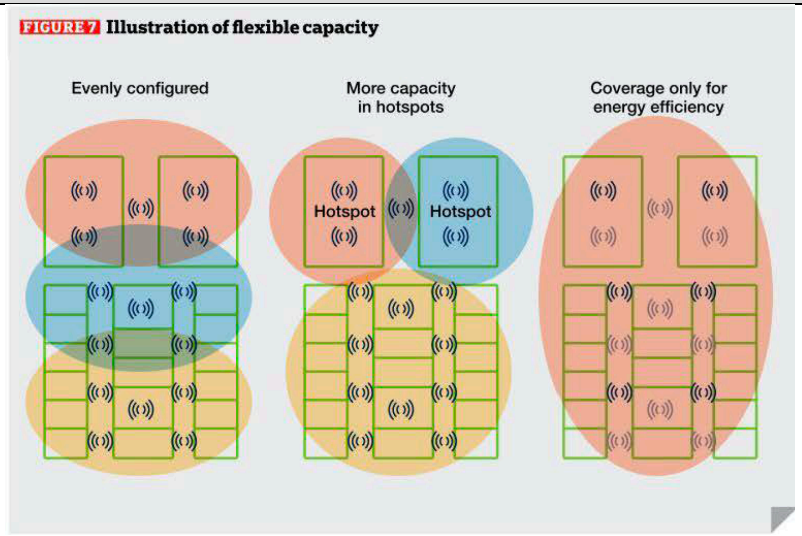
Claim 1 – Element	Verizon / Ericsson's Infringement
[ELEMENT 1-E] wherein the baseband unit is configured to receive a plurality of radio resources from the first signal source and the second signal source;	The Verizon / Ericsson Accused Instrumentalities satisfy this claim element. Ericsson's Radio Dot System includes a baseband unit that is configured to receive a plurality of radio resources from the first signal source and the second signal source. For example, Ericsson's Radio DOT includes a baseband unit as described in **Claim Element 1-A** above. Ericsson's baseband unit is also configured to receive a plurality of radio resources from the signal sources described in **Claim Elements 1-B** and **1-D** above. For example, in the Verizon / Ericsson's Radio Dot System, the DU is the "signal source of the Radio Dot System and provides the pooled baseband resources for the building(s) or area." DALIVZN-0002085-292. As yet another example, as shown below, the Ericsson Radio Dot System includes a "RF Access Unit" which is a baseband unit configured to communicate with the IRU and Radio Dots. 

Claim 1 – Element	Verizon / Ericsson's Infringement
	 DALIVZN-000609-632. As a further example, Verizon / Ericsson's wireless solution "has addressed the 5G mid-band and high-band coverage limitations by developing a flexible 5G Carrier Aggregation solution which supports control and data traffic on the uplink using lower frequency band which increases coverage, and on the downlink with a mid or high-frequency band which increases capacity and data throughput." *See* DALIVZW-000472-488. As a result, the Verizon / Ericsson Radio Dot System can be configured to receive or send a plurality of radio resources for multiple signal sources. As another example, as shown below, the Ericsson Radio Dot System includes a "Baseband" which receives radio resources from the signal sources.

Claim 1 – Element	Verizon / Ericsson's Infringement
	 DALIVZN-000295.
[ELEMENT 1-F] wherein the baseband unit is configured to send a digital representation of a first set of radio resources to the first remote unit at a first point in time, the first set of radio resources for transmission at an antenna of the first remote unit;	The Verizon / Ericsson Accused Instrumentalities satisfy this claim element. Ericsson's Radio Dot System includes a baseband unit that is configured to send a digital representation of a first set of radio resources to the first remote unit at a first point in time, the first set of radio resources for transmission at an antenna of the first remote unit. Ericsson's baseband unit (DU, RF Access Unit, etc.) sends digital representations of the radio resources to the remote units.

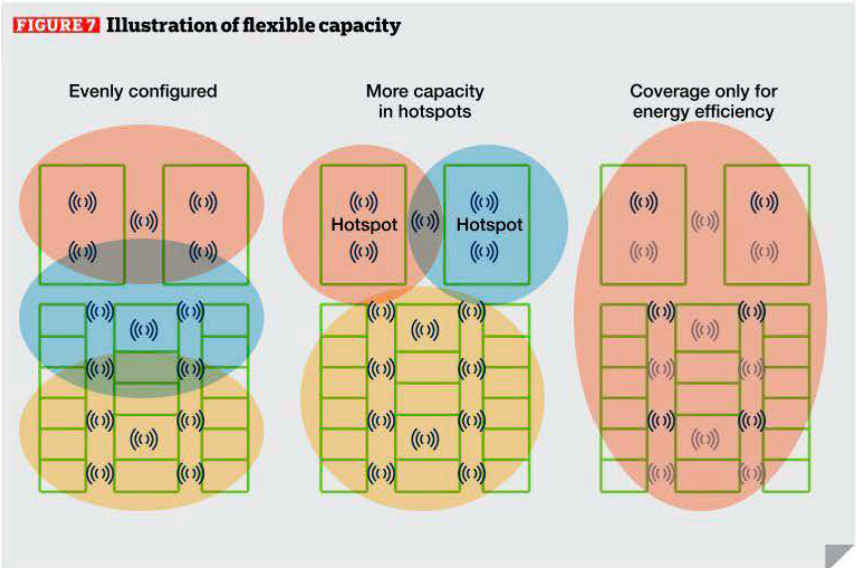
Claim 1 – Element	Verizon / Ericsson's Infringement
	For example, in the Verizon / Ericsson's Radio Dot System, the DU is the "signal source of the Radio Dot System and provides the pooled baseband resources for the building(s) or area." DALIVZN-0002085-292. As another example, as shown below, the Ericsson Radio Dot System includes a "RF Access Unit" which is a baseband unit configured to communicate with the IRU and Radio Dots. MULTI OPERATOR RADIO DOT SYSTEM › One system, 4 operators, non-DAS solution › Enables additional operators to "plug-in" to Radio Dot Solution › Gain multi-operator benefits with the coverage and capacity of the Radio Dot System 

Claim 1 – Element	Verizon / Ericsson's Infringement
	 DALIVZN-000609-632. As a further example, Verizon / Ericsson's wireless solution "has addressed the 5G mid-band and high-band coverage limitations by developing a flexible 5G Carrier Aggregation solution which supports control and data traffic on the uplink using lower frequency band which increases coverage, and on the downlink with a mid or high-frequency band which increases capacity and data throughput." *See* DALIVZW-000472-488. As a result, the Verizon / Ericsson Radio Dot System can be configured to send or receive a plurality of radio resources for multiple signal sources. As shown below, the Verizon / Ericsson system is designed and used for "flexible capacity" which enables configuring and reconfiguring remote radio units to "provide capacity in a more flexible way – by shifting available capacity from one place to another on demand."

Claim 1 – Element	Verizon / Ericsson's Infringement
	 *See* DALIVZN-000001-10 at Fig. 7. As explained in the Ericsson Review, the baseband unit "provides pooled baseband processing for the system. To *manage* the connected radios, the DU uses the CPRI standard for the DU-IRU interface to transfer synchronization, radio signals, and O&M signals." *See* DALIVZN-000001-10.
[ELEMENT 1-G] wherein the baseband unit is configured to send a digital representation of a second set of radio resources to the first remote unit at a second point in time, the second set of radio resources for transmission at the antenna of the first remote unit;	The Verizon / Ericsson Accused Instrumentalities satisfy this claim element. Ericsson's Radio Dot System includes a baseband unit that is configured to send a digital representation of a second set of radio resources to the first remote unit at a second point in time, the second set of radio resources for transmission at the antenna of the first remote unit. Ericsson's baseband unit (DU, RF Access Unit, etc.) sends digital representations of the radio resources to the remote units. For example, Verizon / Ericsson's Radio Dot System can dynamically adjust to maintain efficiency: "centralized radios provide pooled capacity and design flexibility, dynamically meeting demand wherever it occurs in real time while increasing spectral and hardware efficiency of the system." DALIVZN-0002085-292.

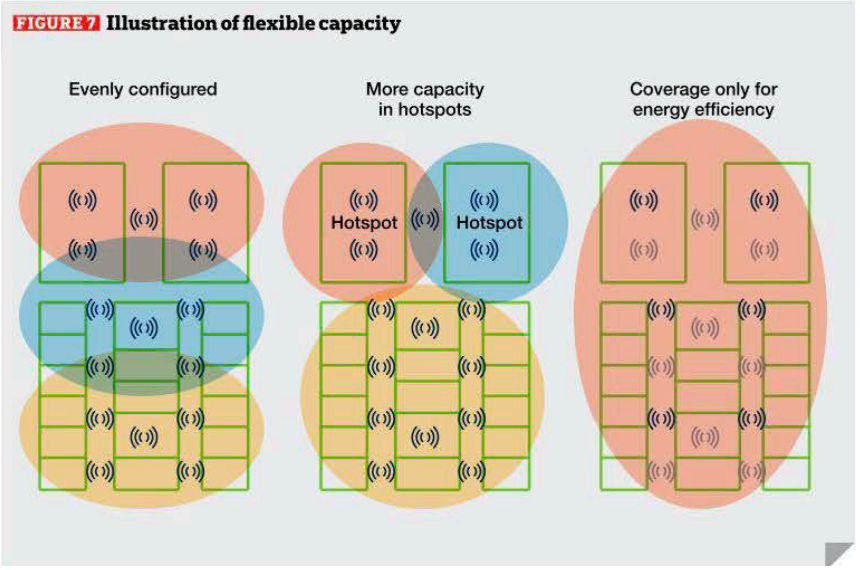
Claim 1 – Element	Verizon / Ericsson's Infringement
	Moreover, Verizon / Ericsson explains that "[t]he capability to configure, scale, and reconfigure logical nodes through software commands enables the RAN to dynamically adjust to changing traffic conditions, hardware faults, as well as new service requirements." DALIVZN-000293-DALIVZN-000294. Verizon / Ericsson also states that "[w]ithout RDS, high traffic demand generated indoors consumes a substantial amount of the radio resources of the surrounding outdoor macro cells. Deploying RDS in large high-traffic enterprises offloads the macro layer and serves the indoors more efficiently." DALIVZN-0002085-292. As another example, Ericsson's U.S. Pat. No. 9,591,590 describing the Accused Radio Dot System describes load balancing between cells. U.S. Pat. No. 9,591,590 at 7:1-3, 16:58-63. As another example, Ericsson Review describes "flexible capacity" of "dynamically cell reconfiguration" based on load on the system:

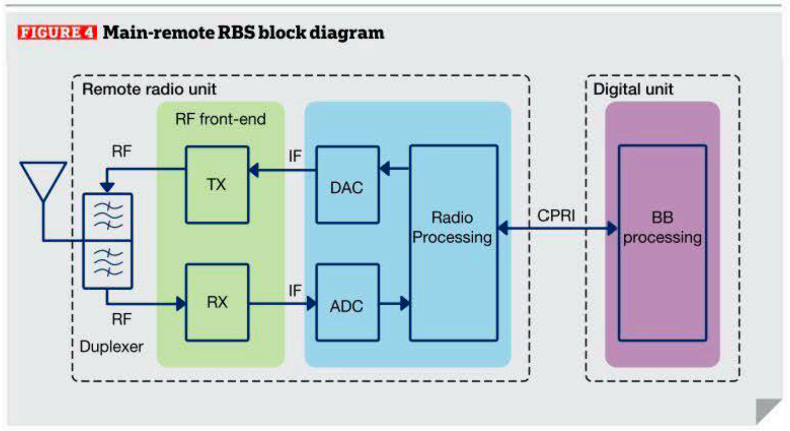
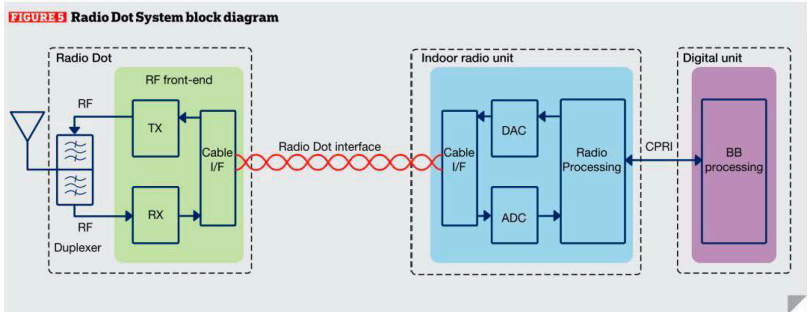
Claim 1 – Element	Verizon / Ericsson's Infringement
	Evolution to flexible capacity Indoor traffic demand tends to vary over time and space, particularly in enterprise and public environments. For example, traffic demand regularly increases over the course of a day in areas where many people gather, such as in conference rooms, cafeterias, and lobbies. This high traffic demand disappears once people leave. Evenly distributing high capacity in a building for its peak use is not the best approach, as this tends to result in overprovisioning capacity. As the RDS uses centralized baseband architecture, it can provide capacity in a more flexible way – by shifting available capacity from one place to another on demand. This can be implemented through dynamic cell reconfiguration (such as, traditional cell splitting and combining) or by using combined cell SDMA technology. For LTE Rel-10/11 UEs, combined cell SDMA is the desired approach for dynamic SDMA operations in one cell involving all the radios. This approach enables efficient use of the available baseband capacity, optimizing both network capacity and mobility, resulting in an improved user experience. Overlapping radios can be turned off (dynamically) to save energy. Figure 7 shows three typical scenarios assuming three-cell baseband capability. Here, for illustration purposes only, a dynamic cell reconfiguration approach is used.

Claim 1 – Element	Verizon / Ericsson's Infringement
	In the first scenario, three cells are distributed evenly to cover the indoor area, and each cell contains five radios. The second scenario covers the same space but includes two traffic hotspots. Here, the top cell is split into two smaller cells to provide higher capacity to the hotspots, while the rest of the area is covered by a single larger cell using the remaining baseband resources. In the third scenario, traffic demand is very low – a common situation late at night and early in the morning. To provide capacity for this low traffic scenario, the orignal three cells are combined into one large cell with only the selected radios active. All other radios (including the baseband resources involved) are inactive to save energy. FIGURE 7 Illustration of flexible capacity  *See* DALIVZN-000001-10.
[ELEMENT 1-H] wherein a number of radio resources in the first set of radio resources is different	The Verizon / Ericsson Accused Instrumentalities satisfy this claim element. Ericsson's Radio Dot System includes a baseband unit that is configured to send digital representations of a first and second set of radio resources as recited in claim **Element 1-G**, wherein a number of radio resources in the

Claim 1 – Element	Verizon / Ericsson's Infringement
from a number of radio resources in the second set of radio resources; and	first set of radio resources is different from a number of radio resources in the second set of radio resources. Ericsson's Radio Dot System dynamic adjustment of radio resources results in a number of radio resources for one set to be different from another set. For example, Verizon / Ericsson's Radio Dot System can dynamically adjust to maintain efficiency: "centralized radios provide pooled capacity and design flexibility, dynamically meeting demand wherever it occurs in real time while increasing spectral and hardware efficiency of the system." DALIVZN-0002085-292. Moreover, Verizon / Ericsson explains that "[t]he capability to configure, scale, and reconfigure logical nodes through software commands enables the RAN to dynamically adjust to changing traffic conditions, hardware faults, as well as new service requirements." DALIVZN-000293-DALIVZN-000294. Verizon / Ericsson also states that "[w]ithout RDS, high traffic demand generated indoors consumes a substantial amount of the radio resources of the surrounding outdoor macro cells. Deploying RDS in large high-traffic enterprises offloads the macro layer and serves the indoors more efficiently." DALIVZN-0002085-292. As another example, Ericsson's US959150 describing the Accused Radio Dot System describes load balancing between cells. US 9,591,590 at 7:1-3, 16:58-63. As another example, Ericsson Review describes "flexible capacity" of "dynamically cell reconfiguration" based on load on the system:

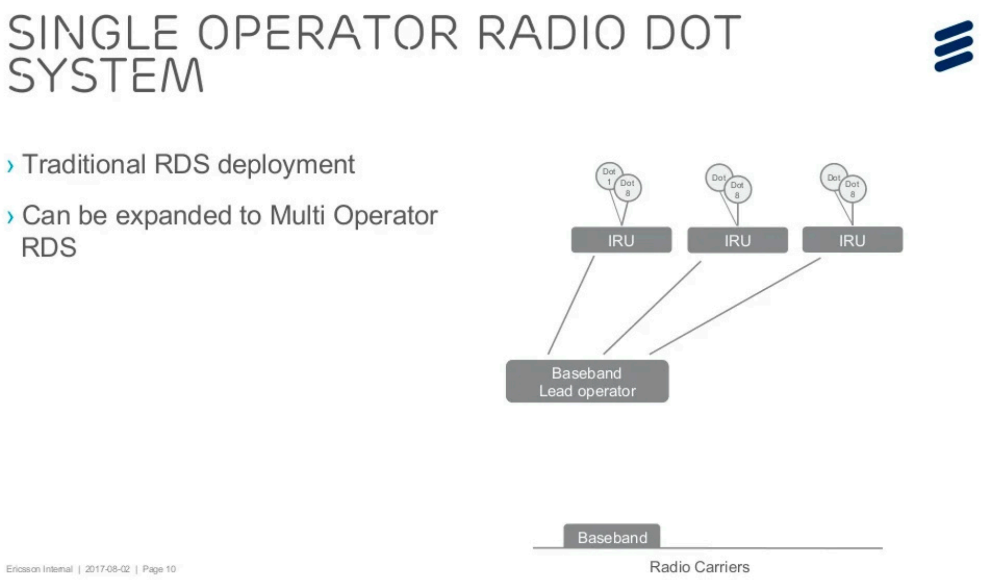
Claim 1 – Element	Verizon / Ericsson's Infringement
	Evolution to flexible capacity Indoor traffic demand tends to vary over time and space, particularly in enterprise and public environments. For example, traffic demand regularly increases over the course of a day in areas where many people gather, such as in conference rooms, cafeterias, and lobbies. This high traffic demand disappears once people leave. Evenly distributing high capacity in a building for its peak use is not the best approach, as this tends to result in overprovisioning capacity. As the RDS uses centralized baseband architecture, it can provide capacity in a more flexible way – by shifting available capacity from one place to another on demand. This can be implemented through dynamic cell reconfiguration (such as, traditional cell splitting and combining) or by using combined cell SDMA technology. For LTE Rel-10/11 UEs, combined cell SDMA is the desired approach for dynamic SDMA operations in one cell involving all the radios. This approach enables efficient use of the available baseband capacity, optimizing both network capacity and mobility, resulting in an improved user experience. Overlapping radios can be turned off (dynamically) to save energy. Figure 7 shows three typical scenarios assuming three-cell baseband capability. Here, for illustration purposes only, a dynamic cell reconfiguration approach is used.

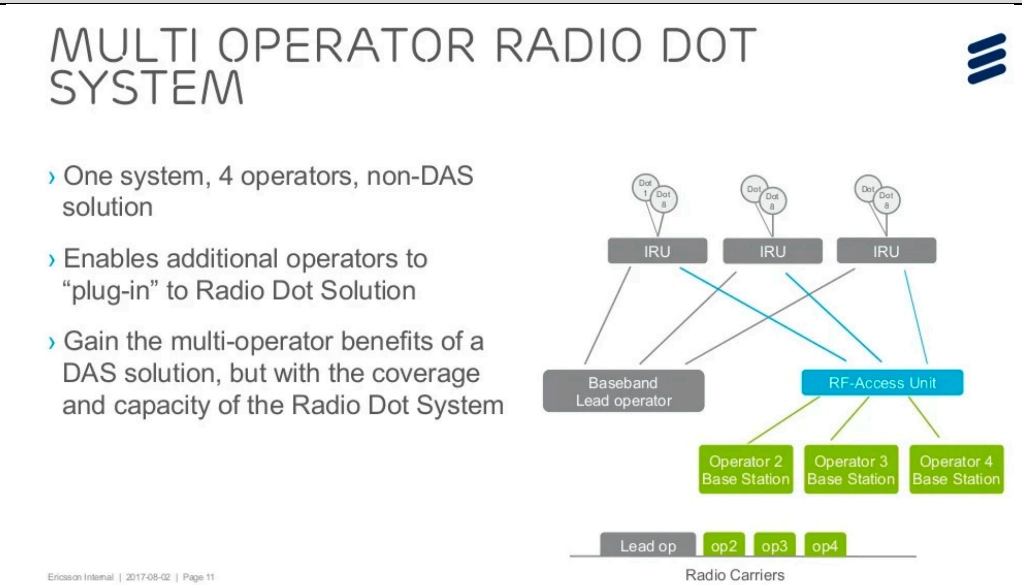
Claim 1 – Element	Verizon / Ericsson's Infringement
	In the first scenario, three cells are distributed evenly to cover the indoor area, and each cell contains five radios. The second scenario covers the same space but includes two traffic hotspots. Here, the top cell is split into two smaller cells to provide higher capacity to the hotspots, while the rest of the area is covered by a single larger cell using the remaining baseband resources. In the third scenario, traffic demand is very low – a common situation late at night and early in the morning. To provide capacity for this low traffic scenario, the orignal three cells are combined into one large cell with only the selected radios active. All other radios (including the baseband resources involved) are inactive to save energy. FIGURE 7 Illustration of flexible capacity  *See* DALIVZN-000001-10.
[ELEMENT 1-I] wherein the baseband unit is configured to receive digital signals from each	The Verizon / Ericsson Accused Instrumentalities satisfy this claim element. Ericsson's Radio Dot System includes a baseband unit that is configured to receive digital signals from each of the plurality of remote units.

Claim 1 – Element	Verizon / Ericsson's Infringement
of the plurality of remote units.	For example, in the Verizon / Ericsson's Radio Dot System, the system includes one or more remote radio units, such as Radio Dots with Indoor Radio Units (IRUs) in bi-directional communication over with the baseband unit via a CPRI data path as shown below.   *See* DALIVZN-000001-10 at Fig. 4 and Fig. 5.

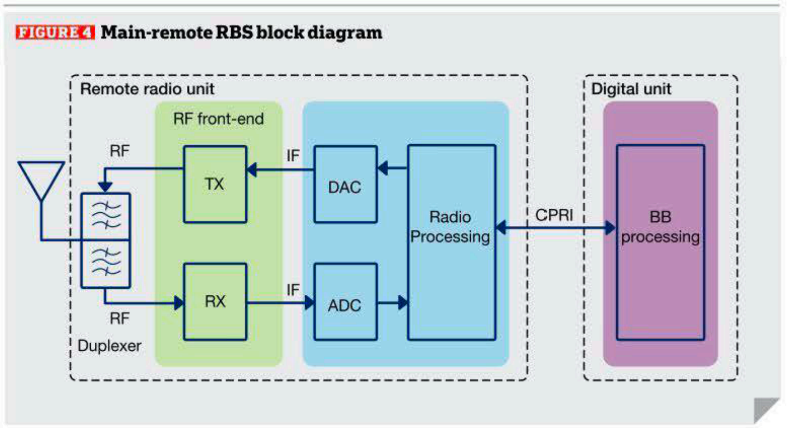
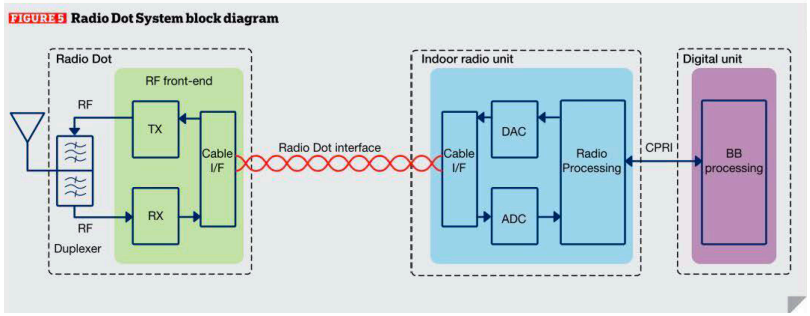
Claim 2	Verizon / Ericsson's Infringement
The system of claim 1 wherein the baseband unit	The Verizon / Ericsson Accused Instrumentalities satisfy this claim element. Ericsson's Radio Dot System baseband unit is configured to packetize each digital representation of a radio resource.

Claim 2	Verizon / Ericsson's Infringement
is configured to packetize each digital representation of a radio resource.	For example, the baseband unit DU is configured to communicate via CPRI with remote radio units, including Radio Dots and IRUs. As a further example and upon information and belief, the Digital Unit (DU) and/or Baseband unit and/or RF-Access Unit (RAU) and Indoor Radio Unit (IRU) and/or Radio Points (e.g., CBRS Micro Radio) can be connected via electrical or fiber and communicate via Digital CPRI and digital CPRI is a packetized communications standard. Indoor Radio Unit The Indoor Radio Unit (IRU) is a component in the Radio Dot System (RDS). The IRU must be used together with Dots to have full radio functionality. The IRU has three purposes: • Provides an interface to the Digital Unit (DU) or Baseband unit through a CPRI cable. • Provides signaling and power interface to the Dot over the Radio Dot Interface (RDI). • Collects external alarms and transmits them to the Digital Unit. Depending on the type of IRU, up to 8 or 16 Dots can be connected to a single IRU.  *See* DALIVZW-000599-600. Digital unit The DU provides pooled baseband processing for the system. To manage the connected radios, the DU uses the CPRI standard for the DU-IRU interface to transfer synchronization, radio signals and O&M signals. When collocated with the IRU, an electrical CPRI interface is used, and for remote connection with the IRU, a CPRI fiber interface is used.

Claim 2	Verizon / Ericsson's Infringement
	DALIVZN-000001-10. Specifically in the downlink, upon information and belief, the Digital Unit (DU) and/or Baseband unit and/or RF-Access Unit packetizes base band signals, and those packetized signals correspond to a plurality of carriers. For example, the radio resources correspond as part of a resource block mapping or as part of carrier aggregation. Specifically in the uplink, upon information and belief, the Indoor Radio Unit (IRU) and/or Radio Dot (RD) packetizes base band signals, and those packetized signals correspond to a plurality of radio resources. For example, the carriers correspond as part of a resource block mapping or as part of carrier aggregation. 

Claim 2	Verizon / Ericsson's Infringement
	 DALIVZN-000609-632 at 10-11 (showing carriers / radio resources).

Claim 3 - Element	Verizon / Corning's Infringement
The system of claim 1 wherein the digital representation of the first set of radio resources includes destination information identifying the first remote unit and the digital representation of the second set of radio resources includes destination information	The Verizon / Ericsson Accused Instrumentalities satisfy this claim element. Ericsson's Radio Dot System meets the system of claim 1 wherein the digital representation of the first set of radio resources includes destination information identifying the first remote unit and the digital representation of the second set of radio resources includes destination information identifying the first remote unit. Ericsson Radio Dot sends digital transmissions to the remote radio units via CPRI as illustrated below. CPRI involves the use of packetized data including Control & Management Channel maps and encodes ethernet packets for transmission with destination information identifying the remote units. Further, both ethernet and IP protocols have destination information. For example, ethernet has Destination Mac Address (*see e.g.,* Ethernet 802.3 frame protocol standard) while IPv4 and IPv6 have

Claim 3 - Element	Verizon / Corning's Infringement
identifying the first remote unit.	destination IP address (*see e.g.,* Internet Protocol version 4 and Internet Protocol version 6 protocol standards).   *See* DALIVZN-000001-10 at Fig. 4 and Fig. 5.

Claim 4	Verizon / Ericsson's Infringement
The system of claim 1 wherein the first set of	The Verizon / Ericsson Accused Instrumentalities satisfy this claim element. Ericsson's Radio Dot System meets the system of claim 1 wherein the first set of radio resources is a subset of the plurality

Claim 4	Verizon / Ericsson's Infringement
radio resources is a subset of the plurality of radio resources and includes at least some radio resources from the first signal source and at least some radio resources from the second signal source.	of radio resources and includes at least some radio resources from the first signal source and at least some radio resources from the second signal source. *See* **Claim Elements 1-E**, **1-F**, and **1-G**.

Claim 8 - Element	Verizon / Ericsson's Infringement
[PREAMBLE] A baseband controller for use in the transport of wireless communications, comprising:	To the extent the preamble is interpreted to be limiting, the Verizon / Ericsson Accused Instrumentalities satisfies this preamble. On information and belief, and based on publicly available information, the Verizon / Ericsson Accused Instrumentalities satisfy each and every limitation of claim 8 by providing a baseband controller for use in the transport of wireless communications. *See* **Claim 1**.
[ELEMENT 8-A] a plurality of interfaces to communicatively couple a baseband unit to a plurality of signal sources, including at least a first signal source and a second signal source;	The Verizon / Ericsson Accused Instrumentalities satisfy this claim element. Ericsson's Radio Dot System includes a plurality of interfaces to communicatively couple a baseband unit to a plurality of signal sources, including at least a first signal source and a second signal source. *See* **Claim Element 1-D**.
[ELEMENT 8-B] at least one interface to communicatively couple	The Verizon / Ericsson Accused Instrumentalities satisfy this claim element. Ericsson's Radio Dot System includes at least one interface to communicatively couple the baseband unit to a plurality of remote units, including at least a first remote unit.

Claim 8 - Element	Verizon / Ericsson's Infringement
the baseband unit to a plurality of remote units, including at least a first remote unit;	*See* Claim Elements **1-C**, **1-F**, **1-G**, and **1-I**.
[ELEMENT 8-C] wherein the baseband unit is configured to receive a plurality of radio resources from the first signal source and the second signal source;	The Verizon / Ericsson Accused Instrumentalities satisfy this claim element. Ericsson's Radio Dot System includes a baseband unit configured to receive a plurality of radio resources from the first signal source and the second signal source. *See* **Claim Element 1-E**.
[ELEMENT 8-D] wherein the baseband unit is configured to send digital representations of a first set of radio resources to the first remote unit at a first point in time, the first set of radio resources for transmission at an antenna of the first remote unit;	The Verizon / Ericsson Accused Instrumentalities satisfy this claim element. Ericsson's Radio Dot System includes a baseband unit configured to send digital representations of a first set of radio resources to the first remote unit at a first point in time, the first set of radio resources for transmission at an antenna of the first remote unit. *See* **Claim Element 1-F**.
[ELEMENT 8-E] wherein the baseband unit is configured to send digital representations of a second set of radio resources to the first remote unit at a second point in time, the second set of radio resources for transmission at the	The Verizon / Ericsson Accused Instrumentalities satisfy this claim element. Ericsson's Radio Dot System includes a baseband unit configured to send digital representations of a second set of radio resources to the first remote unit at a second point in time, the second set of radio resources for transmission at the antenna of the first remote unit. *See* **Claim Element 1-G**.

Claim 8 - Element	Verizon / Ericsson's Infringement
antenna of the first remote unit; and	
[ELEMENT 8-F] wherein a number of radio resources in the first set of radio resources is different from a number of radio resources in the second set of radio resources.	The Verizon / Ericsson Accused Instrumentalities satisfy this claim element. Ericsson's Radio Dot System includes a baseband unit that is configured to send digital representations of a first and second set of radio resources, wherein a number of radio resources in the first set of radio resources is different from a number of radio resources in the second set of radio resources. *See* **Claim Element 1-H**.

Claim 9	Verizon / Ericsson's Infringement
The baseband controller of claim 8 wherein the baseband unit is configured to packetize each digital representation of a radio resource.	The Verizon / Ericsson Accused Instrumentalities satisfy this claim element. Ericsson's Radio Dot System meets the baseband controller of claim 8 wherein the baseband unit is configured to packetize each digital representation of a radio resource. *See* **Claim 2**.

Claim 10 - Element	Verizon / Corning's Infringement
The baseband controller of claim 8 wherein the digital representation of the first set of radio	The Verizon / Ericsson Accused Instrumentalities satisfy this claim element. Ericsson's Radio Dot system meets the baseband controller of claim 8 wherein the digital representation of the first set of radio resources includes destination information identifying the first remote unit and the digital

Claim 10 - Element	Verizon / Corning's Infringement
resources includes destination information identifying the first remote unit and the digital representation of the second set of radio resources includes destination information identifying the first remote unit.	representation of the second set of radio resources includes destination information identifying the first remote unit. *See* **Claim 3**.

Claim 11	Verizon / Ericsson's Infringement
The baseband controller of claim 8 wherein the first set of radio resources is a subset of the plurality of radio resources and includes at least some radio resources from the first signal source and at least some radio resources from the second signal source.	The Verizon / Ericsson Accused Instrumentalities satisfy this claim element. Ericsson's Radio Dot System meets the baseband controller of claim 8 wherein the first set of radio resources is a subset of the plurality of radio resources and includes at least some radio resources from the first signal source and at least some radio resources from the second signal source. *See* **Claim Elements 1-E**, **1-F**, and **1-G**.

Claim 13	Verizon / Ericsson's Infringement
The baseband controller of claim 8 wherein the plurality of radio resources include a first	The Verizon / Ericsson Accused Instrumentalities satisfy this claim element. Ericsson's Radio Dot System meets the baseband controller of claim 8 wherein the plurality of radio resources include a first composite signal from the first signal source and a second composite signal from the second signal source, and the baseband unit is configured to form the digital representation of the first set of

Claim 13	Verizon / Ericsson's Infringement
composite signal from the first signal source and a second composite signal from the second signal source, and the baseband unit is configured to form the digital representation of the first set of radio resources from a first subset of the first composite signal and a second subset of the second composite signal.	radio resources from a first subset of the first composite signal and a second subset of the second composite signal. *See* **Claim Elements 1-E**, **1-F**, and **1-G**.

Claim 14 - Element	Verizon / Ericsson's Infringement
[PREAMBLE] A method for providing digital signals in a Distributed Antenna System (DAS), comprising:	To the extent the preamble is interpreted to be limiting, the Verizon / Ericsson Accused Instrumentalities satisfies this preamble. On information and belief, and based on publicly available information, the Verizon / Ericsson Accused Instrumentalities satisfy each and every limitation of claim 14 by performing a method for providing digital signals in a Distributed Antenna System (DAS). *See* **Claim 1**. Further, this method is infringed by Verizon / Ericsson when the Radio Dot systems are tested and/or used by Verizon / Ericsson.
[ELEMENT 14-A] receiving at a baseband unit, from a plurality of signal sources including at least a first signal source	The Verizon / Ericsson Accused Instrumentalities satisfy this claim element. Ericsson's Radio Dot System receives at a baseband unit, from a plurality of signal sources including at least a first signal source and a second signal source, a plurality of radio resources. *See* **Claim Element 1-E**.

Claim 14 - Element	Verizon / Ericsson's Infringement
and a second signal source, a plurality of radio resources;	
[ELEMENT 14-B] transmitting from the baseband unit, at a first point in time, a digital representation of a first set of radio resources to a first remote unit, the first set of radio resources for transmission at an antenna of the first remote unit;	The Verizon / Ericsson Accused Instrumentalities satisfy this claim element. Ericsson's Radio Dot System transmits from the baseband unit, at a first point in time, a digital representation of a first set of radio resources to a first remote unit, the first set of radio resources for transmission at an antenna of the first remote unit. *See* **Claim Element 1-F**.
[ELEMENT 14-C] transmitting from the baseband unit, at a second point in time, a digital representation of a second set of radio resources to the first remote unit, the second set of radio resources for transmission at the antenna of the first remote unit;	The Verizon / Ericsson Accused Instrumentalities satisfy this claim element. Ericsson's Radio Dot System transmits from the baseband unit, at a second point in time, a digital representation of a second set of radio resources to the first remote unit, the second set of radio resources for transmission at the antenna of the first remote unit. *See* **Claim Element 1-G**.
[ELEMENT 14-D] wherein a number of radio resources in the first set of radio resources is different from a number of radio resources in the second set of radio resources.	The Verizon / Ericsson Accused Instrumentalities satisfy this claim element. Ericsson's Radio Dot System performs the method of claim 14, wherein a number of radio resources in the first set of radio resources is different from a number of radio resources in the second set of radio resources. *See* **Claim Element 1-H**.

Claim 15 - Element	Verizon / Corning's Infringement
The method of claim 14 wherein the digital representation of the first set of radio resources includes destination information identifying the first remote unit and the digital representation of the second set of radio resources includes destination information identifying the second remote unit.	The Verizon / Ericsson Accused Instrumentalities satisfy this claim element. Ericsson's Radio Dot System performs the method of claim 14 wherein the digital representation of the first set of radio resources includes destination information identifying the first remote unit and the digital representation of the second set of radio resources includes destination information identifying the second remote unit. *See* **Claim 3**. Further, this method is infringed by Verizon / Ericsson when the Radio Dot systems are tested and/or used by Verizon / Ericsson.

Claim 16	Verizon / Ericsson's Infringement
The method of claim 14 wherein the first set of radio resources is a subset of the plurality of radio resources and includes at least some radio resources from the first signal source and at least some radio resources from the second signal source.	The Verizon / Ericsson Accused Instrumentalities satisfy this claim element. Ericsson's Radio Dot System performs the method of claim 14 wherein the first set of radio resources is a subset of the plurality of radio resources and includes at least some radio resources from the first signal source and at least some radio resources from the second signal source. *See* **Claim Elements 1-E**, **1-F**, and **1-G**. Further, this method is infringed by Verizon / Ericsson when the Radio Dot systems are tested and/or used by Verizon / Ericsson.

Claim 18	Verizon / Ericsson's Infringement
The method of claim 14 wherein the plurality of radio resources include a first composite signal from the first signal source and a second composite signal from the second signal source, the method further comprising forming, at the baseband unit, the digital representation of the first set of radio resources from a first subset of the first composite signal and a second subset of the second composite signal.	The Verizon / Ericsson Accused Instrumentalities satisfy this claim element. Ericsson's Radio Dot System performs the method of claim 14 wherein the plurality of radio resources include a first composite signal from the first signal source and a second composite signal from the second signal source, the method further comprising forming, at the baseband unit, the digital representation of the first set of radio resources from a first subset of the first composite signal and a second subset of the second composite signal. *See* **Claim Elements 1-E**, **1-F**, and **1-G**. Further, this method is infringed by Verizon / Ericsson when the Radio Dot systems are tested and/or used by Verizon / Ericsson.

Claim 19	Verizon / Ericsson's Infringement
The method of claim 14 further comprising packetizing, at the baseband unit, at least a subset of the plurality of radio resources.	The Verizon / Ericsson Accused Instrumentalities satisfy this claim element. Ericsson's Radio Dot System performs the method of claim 14 further comprising packetizing, at the baseband unit, at least a subset of the plurality of radio resources. *See* **Claim 2**. Further, this method is infringed by Verizon / Ericsson when the Radio Dot systems are tested and/or used by Verizon / Ericsson.

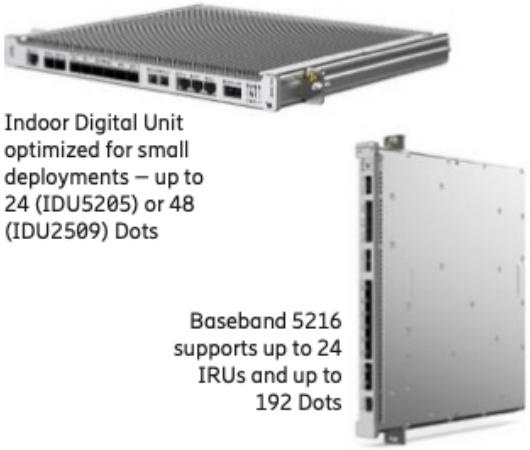
Exhibit E

Plaintiff Dali Wireless Inc. ("Dali") contends that Defendants Cellco Partnership d/b/a Verizon Wireless, Verizon Corporate Services Group Inc., Verizon Online LLC (collectively, "Verizon"), Ericsson Inc, and Telefonaktiebolaget LM Ericsson (collectively, "Ericsson") (altogether, "Verizon / Ericsson") infringe the below-identified claims of Dali's U.S. Patent No. 11,026,232 (the '232 Patent) by deploying, operating, maintaining, testing, and using Verizon's LTE and 5G networks which include equipment relating to small cell wireless solutions, such as Ericsson's Radio Dot System (including, but not limited to, the Digital Unit (DU), Indoor Radio Units (IRU) and Radio Dots (RD), CBRS Micro Radios, and mRRUs), cabling and switches, and any software running thereon) (collectively, the "Verizon / Ericsson Accused Instrumentalities"). The specific components, systems, and constructs identified in this chart are for exemplary purposes only and Dali reserves all rights to supplement as additional components, systems, and constructs become known through discovery, as well as after Verizon / Ericsson produces documents and source code and/or the Court construes any terms from the claims of the '232 Patent. Claims 1-3, 6-8, 12-14, 16-18, and 20 are infringed under 35 U.S.C. § 271(a) when Verizon / Ericsson uses the Verizon / Ericsson Accused Instrumentalities.

Claim 1 – Element	Verizon / Ericsson's Infringement
[PREAMBLE] A wireless system comprising:	To the extent the preamble is interpreted to be limiting, the Verizon / Ericsson Accused Instrumentalities satisfies this preamble. On information and belief, and based on publicly available information, the Verizon / Ericsson Accused Instrumentalities satisfy each and every limitation of claim 1 by providing a wireless system. For example, Ericsson's Radio Dot System "combines centralized baseband and radio units with visually low-impact antennas. Ericsson innovations enable RF signal, power and control over standard shielded LAN cables for cost-effective deployment with minimal business disruption. *See, e.g.*, DALIVZN-0002085-292. Moreover, Ericsson's Radio Dot System includes "centralized radios [which] provide pooled capacity and design flexibility, dynamically meeting demand wherever it occurs in real time while increasing spectral and hardware efficiency of the system." *Id.* Ericsson's multiband Radio Dot System for CBRS "combine carriers to over improved network speeds, including support for 4G and 5G on a single cable. Service providers can leverage pre-existing fiber to make stable networks." DALIVZN-000295.

Claim 1 – Element	Verizon / Ericsson's Infringement
[ELEMENT 1-A] one or more central nodes that receive a number of a plurality of radio resources from an operator hub that enables wireless communications and that provides the plurality of radio resources to a radio access network using the Common Public Radio Interface (CPRI) protocol; and	The Verizon / Ericsson Accused Instrumentalities satisfy this claim element. The Ericsson Radio Dot System includes one or more central nodes that receive a number of a plurality of radio resources from an operator hub that enables wireless communications and that provides the plurality of radio resources to a radio access network using the Common Public Radio Interface (CPRI) protocol. For example, in the Verizon / Ericsson Radio Dot System, the system includes one or more central nodes, such as Digital Units (DUs) as shown below. Ericsson describes its Radio Dot System as a "complete end-to-end solution including the RF signal source. RDS consists of the Radio Dots, Baseband Units (DU) and Indoor Radio Unit(s) (IRU). The DU and IRU can be connected by fiber or co-located and connected through Digital CPRI cable" and that "[t]he Baseband is the signal source of the Radio Dot System and provides the pooled baseband resources for the building(s) or area." RDS Solution Components RDS is a complete end-to-end solution including the RF signal source. RDS consists of the Radio Dots, Baseband Units (DU) and Indoor Radio Unit(s) (IRU). The DU and IRU can be connected by fiber or co-located and connected through Digital CPRI cable. The Dot requires a standard CAT6/CAT6A shielded LAN cable for both connectivity and power. This design yields up to 60% reduced cabling cost and up to 70% faster install time compared to DAS, making it more cost-effective for the operator and less disruptive to end customers. **Radio Dot:** The remotely powered Radio Dot contains the power amplifier and band filter and is the only frequency-dependent component of the complete RDS architecture. New frequencies can be added to the system by adding or swapping Dots. Single and dual band Dots are designed for fast and flexible deployment. The quantity of Dots required is dependent on coverage and performance criteria and will range from 4,000 to 10,000 square feet per Dot. Because each Dot is connected to the same baseband, there is no interference between them, simplifying optimization and ensuring exceptional overall throughput and end user experience.  *See, e.g.*, DALIVZN-000288.

Claim 1 – Element	Verizon / Ericsson's Infringement

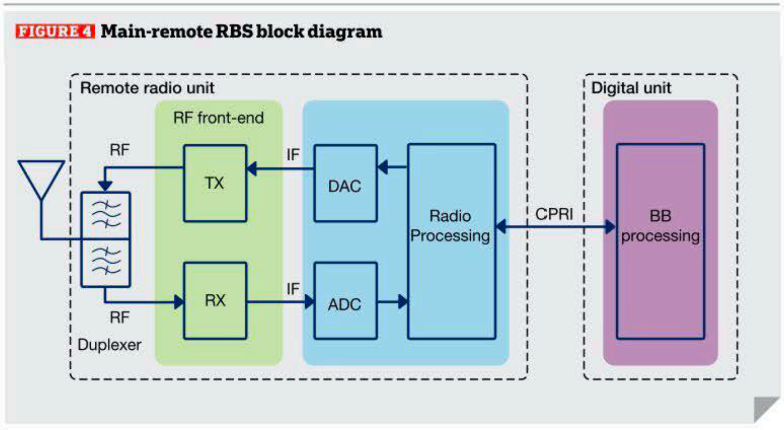


Multiple options for RF signal source or Digital Unit (DU)

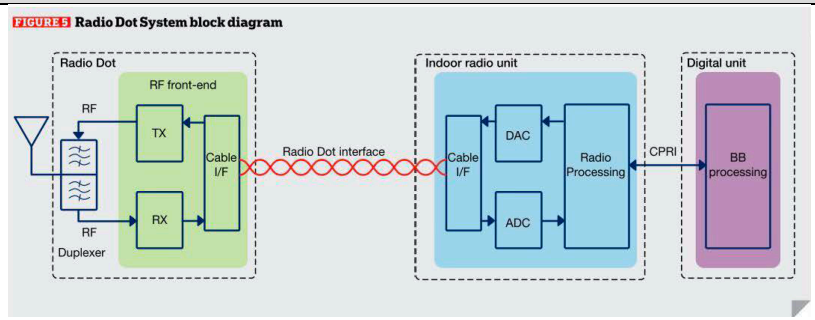
Digital Unit (DU): The Baseband is the signal source of the Radio Dot System and provides the pooled baseband resources for the building(s) or area. The DU delivers feature parity and roadmap evolution with the macro network and supports key coordination features such as Carrier Aggregation and Combined Cell, vital for multi-antenna indoor deployments. As new features are added to the Ericsson RAN software, they are automatically available in every radio dot system deployment. The Baseband also provides synchronization and transport security functionality, and aggregates the RDS traffic onto a common backhaul connection.

Multiple options are available to optimize capacity and cost for specific deployments. These range from the cost-effective IDU5205 supporting up to 24 Dots to the large Baseband 5216 that supports up to 192 Dots with multiple options in between.

See, e.g., DALIVZN-000290.

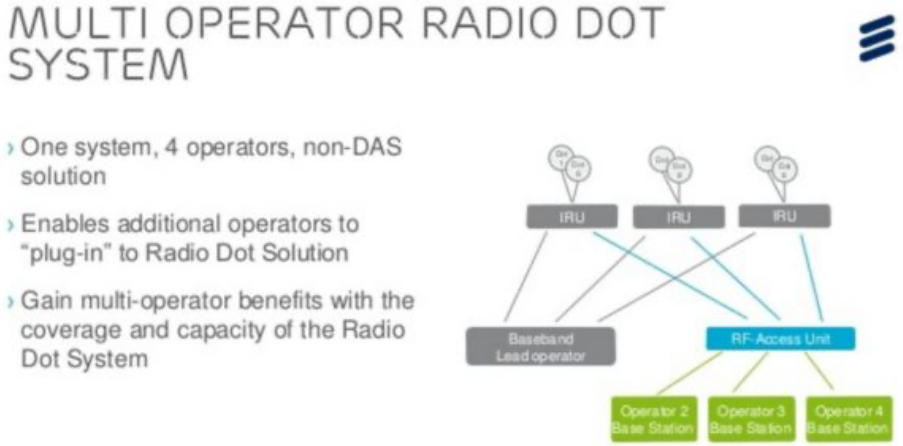


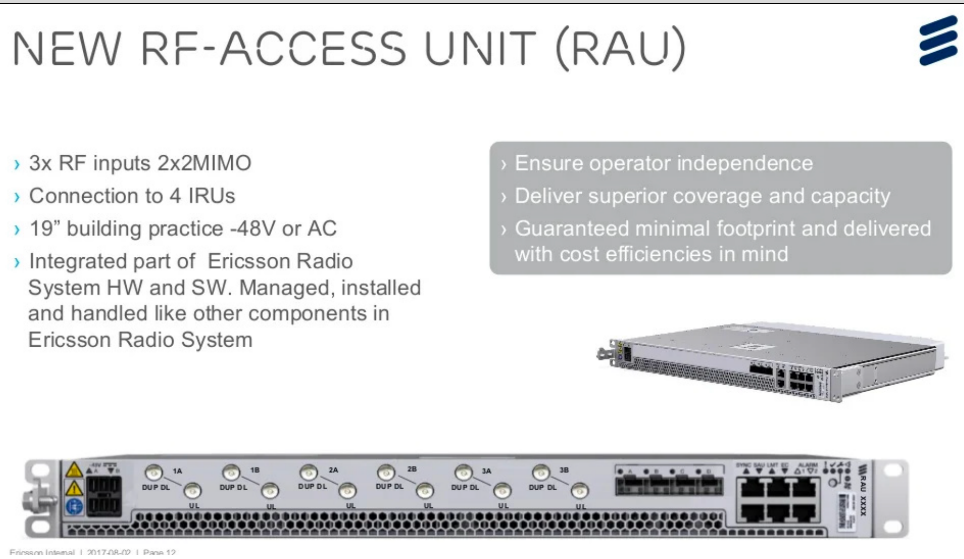
Claim 1 – Element	Verizon / Ericsson's Infringement

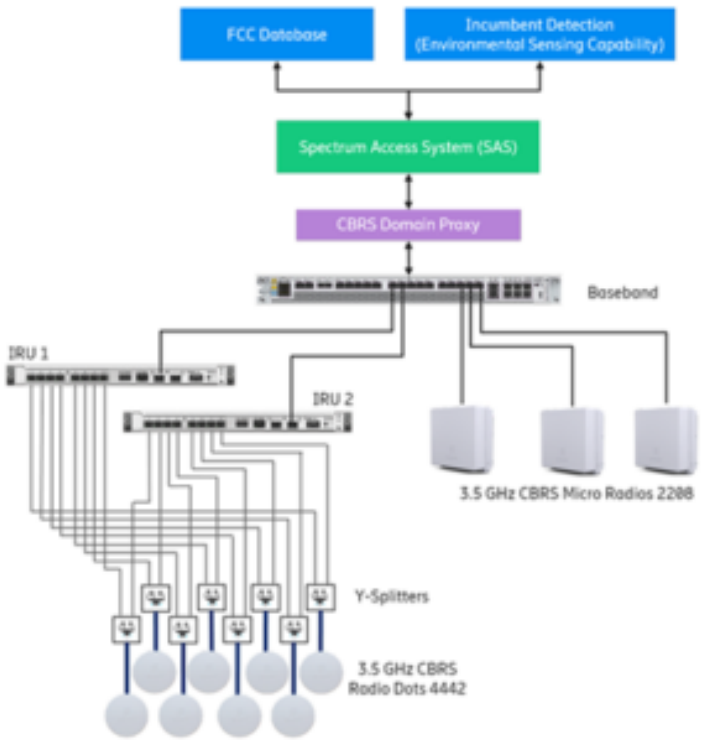


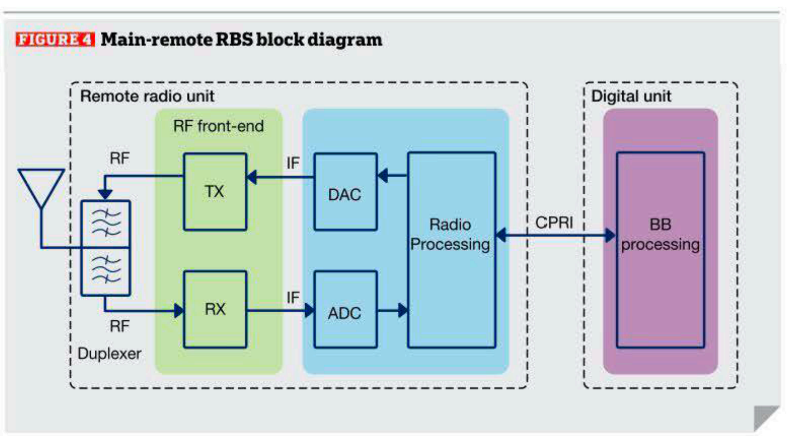
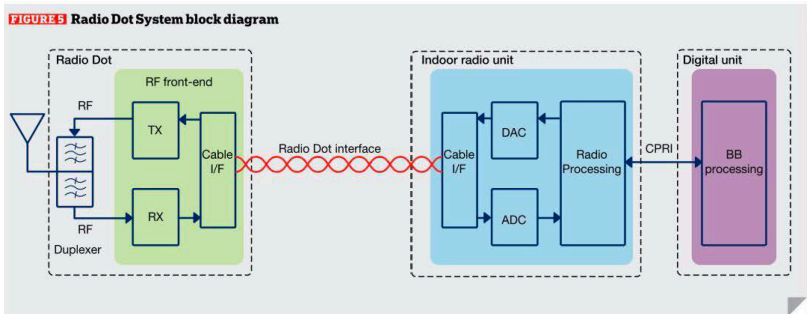
See DALIVZN-000001-10 at Fig. 4 and Fig. 5.

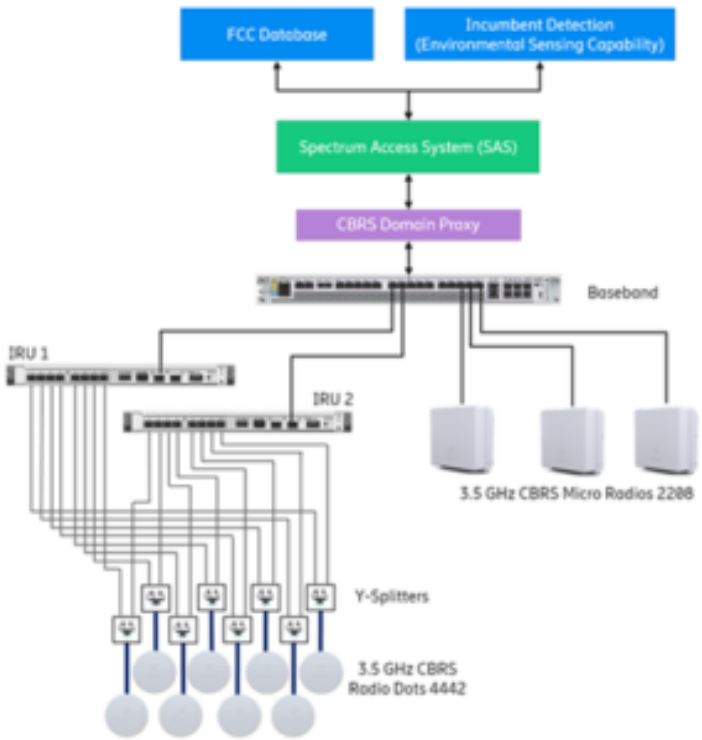
As yet another example, as shown below, the Ericsson Radio Dot System includes a "RF Access Unit" which is a central node configured to communicate with the IRU and Radio Dots.

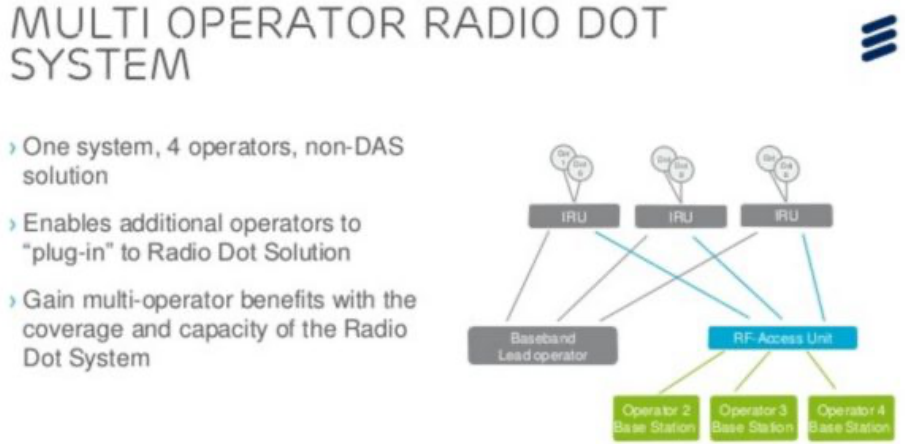


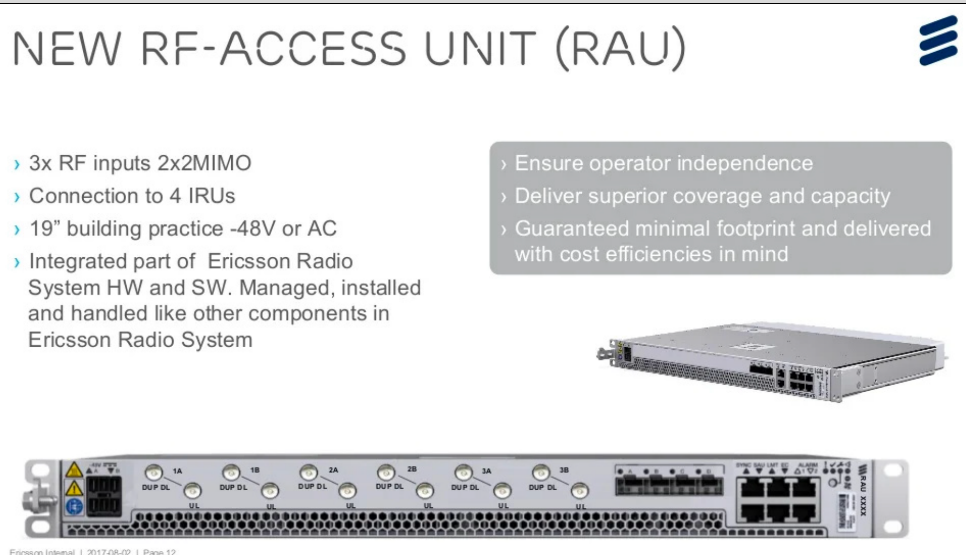
Claim 1 – Element	Verizon / Ericsson's Infringement
	 DALIVZN-000609-632. As another example, as shown below, the Ericsson Radio Dot System includes a "Baseband" which is a central node configured to communicates with the IRU, Radio Dots, or CBRS Micro Radios:

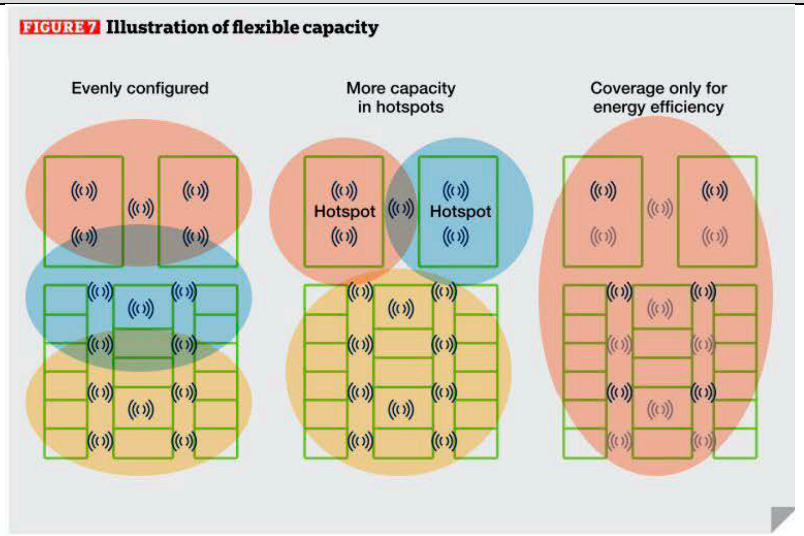
Claim 1 – Element	Verizon / Ericsson's Infringement
	 DALIVZN-000295.
[ELEMENT 1-B] a plurality of wireless access points that is coupled to the one or more central nodes and distributes one or more wireless signals to one or more wireless subscribers, the plurality of wireless access points including at	The Verizon / Ericsson Accused Instrumentalities satisfy this claim element. The Ericsson Radio Dot System includes a plurality of wireless access points that is coupled to the one or more central nodes and distributes one or more wireless signals to one or more wireless subscribers, the plurality of wireless access points including at least a first access point and a second access point. For example, in the Verizon / Ericsson's Radio Dot System, the system includes one or more wireless access points, such as Radio Dots with Indoor Radio Units (IRUs) as shown below:

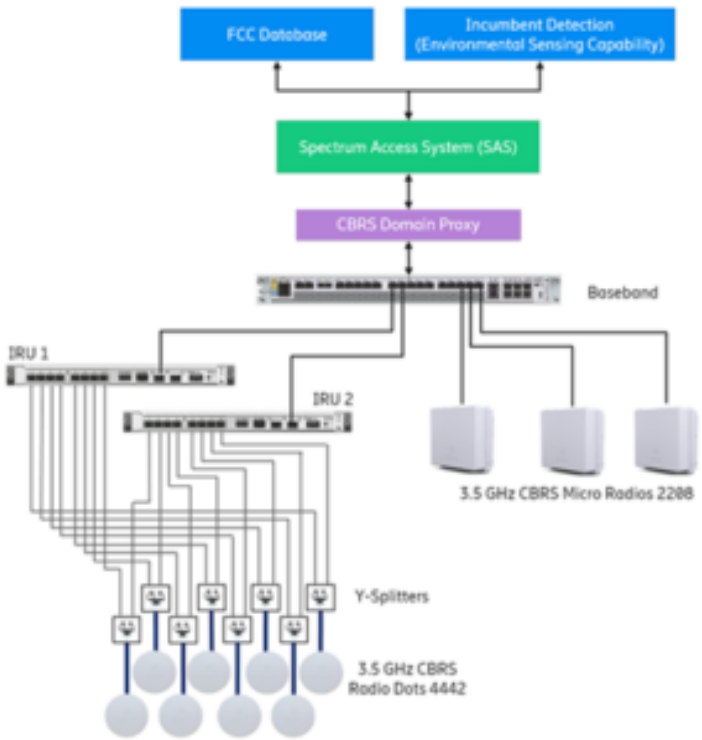
Claim 1 – Element	Verizon / Ericsson's Infringement
least a first access point and a second access point,	  *See* DALIVZN-000001-10 at Fig. 4 and Fig. 5. Wireless access points also include Radio Dots that do not require an IRU, such as the CBRS Micro Radio as shown below or the Micro Radio (mRRU). As another example, as shown below, the Ericsson Radio Dot System includes a "Baseband" which is a baseband unit configured to communicates with the IRU, Radio Dots, or CBRS Micro Radios:

Claim 1 – Element	Verizon / Ericsson's Infringement
	 DALIVZN-000295.
[ELEMENT 1-C] wherein one or more central nodes assigns a first subset of the number of the plurality of radio resources to the first access point and a second subset of the number of the plurality of radio resources to the second access point, the	The Verizon / Ericsson Accused Instrumentalities satisfy this claim element. The Ericsson Radio Dot System includes the one or more central nodes recited in claim element 1-A, wherein one or more central nodes assigns a first subset of the number of the plurality of radio resources to the first access point and a second subset of the number of the plurality of radio resources to the second access point, the first subset including more radio resources than the second subset. Ericsson's central node (DU, RF Access Unit, etc.) assigns a first subset of radio resources to a first access points and a second subset to a second access point.

Claim 1 – Element	Verizon / Ericsson's Infringement
first subset including more radio resources than the second subset, and	For example, in the Verizon / Ericsson's Radio Dot System, the DU is the "signal source of the Radio Dot System and provides the pooled baseband resources for the building(s) or area." DALIVZN-0002085-292. As another example, as shown below, the Ericsson Radio Dot System includes a "RF Access Unit" which is a baseband unit configured to communicate with the IRU and Radio Dots. 

Claim 1 – Element	Verizon / Ericsson's Infringement
	 DALIVZN-000609-632. As a further example, Verizon / Ericsson's wireless solution "has addressed the 5G mid-band and high-band coverage limitations by developing a flexible 5G Carrier Aggregation solution which supports control and data traffic on the uplink using lower frequency band which increases coverage, and on the downlink with a mid or high-frequency band which increases capacity and data throughput." *See* DALIVZW-000472-488. As a result, the Verizon / Ericsson Radio Dot System can be configured to send or receive a plurality of radio resources. As shown below, the Verizon / Ericsson system is designed and used for "flexible capacity" which enables configuring and reconfiguring remote radio units to "provide capacity in a more flexible way – by shifting available capacity from one place to another on demand."

Claim 1 – Element	Verizon / Ericsson's Infringement
	 *See* DALIVZN-000001-10 at Fig. 7. As explained in the Ericsson Review, the baseband unit "provides pooled baseband processing for the system. To *manage* the connected radios, the DU uses the CPRI standard for the DU-IRU interface to transfer synchronization, radio signals, and O&M signals." *See* DALIVZN-000001-10. As another example, as shown below, the Ericsson Radio Dot System includes a "Baseband" which is a central node that assigns radio resources to the IRU, Radio Dots, or CBRS Micro Radios:

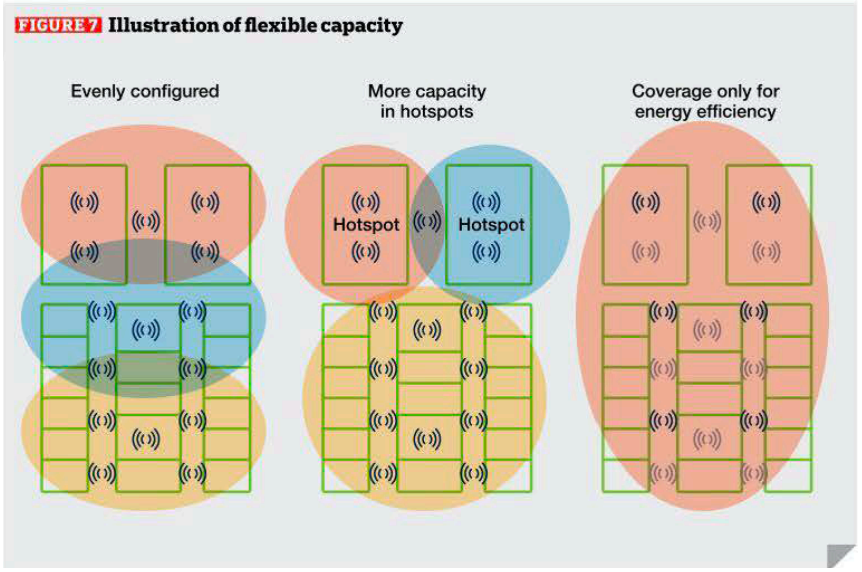
Claim 1 – Element	Verizon / Ericsson's Infringement
	 DALIVZN-000295.
ELEMENT 1-D] wherein, in response to a change in need of a number of wireless subscribers coupled to the second access point and which of the second subset is loaded beyond a threshold, the one or more central nodes assign additional radio	The Verizon / Ericsson Accused Instrumentalities satisfy this claim element. The Ericsson Radio Dot System includes the one or more central nodes recited in claim element 1-A, wherein, in response to a change in need of a number of wireless subscribers coupled to the second access point and which of the second subset is loaded beyond a threshold, the one or more central nodes assign additional radio resources of the plurality of radio resources to the second access point. Ericsson's central node (DU, RF Access Unit, etc.) assigns additional radio resources to a second wireless access point depending on a change in need of users connected to the second access point.

Claim 1 – Element	Verizon / Ericsson's Infringement
resources of the plurality of radio resources to the second access point.	For example, Verizon / Ericsson's Radio Dot System can dynamically adjust to maintain efficiency: "centralized radios provide pooled capacity and design flexibility, dynamically meeting demand wherever it occurs in real time while increasing spectral and hardware efficiency of the system." DALIVZN-0002085-292. Moreover, Verizon / Ericsson explains that "[t]he capability to configure, scale, and reconfigure logical nodes through software commands enables the RAN to dynamically adjust to changing traffic conditions, hardware faults, as well as new service requirements." DALIVZN-000293-DALIVZN-000294. Verizon / Ericsson also states that "[w]ithout RDS, high traffic demand generated indoors consumes a substantial amount of the radio resources of the surrounding outdoor macro cells. Deploying RDS in large high-traffic enterprises offloads the macro layer and serves the indoors more efficiently." DALIVZN-0002085-292. As another example, Ericsson's US959150 describing the Accused Radio Dot System describes load balancing between cells. US 9,591,590 at 7:1-3, 16:58-63. As another example, Ericsson Review describes "flexible capacity" of "dynamically cell reconfiguration" based on load on the system:

Claim 1 – Element	Verizon / Ericsson's Infringement
	Evolution to flexible capacity Indoor traffic demand tends to vary over time and space, particularly in enterprise and public environments. For example, traffic demand regularly increases over the course of a day in areas where many people gather, such as in conference rooms, cafeterias, and lobbies. This high traffic demand disappears once people leave. Evenly distributing high capacity in a building for its peak use is not the best approach, as this tends to result in overprovisioning capacity. As the RDS uses centralized baseband architecture, it can provide capacity in a more flexible way – by shifting available capacity from one place to another on demand. This can be implemented through dynamic cell reconfiguration (such as, traditional cell splitting and combining) or by using combined cell SDMA technology. For LTE Rel-10/11 UEs, combined cell SDMA is the desired approach for dynamic SDMA operations in one cell involving all the radios. This approach enables efficient use of the available baseband capacity, optimizing both network capacity and mobility, resulting in an improved user experience. Overlapping radios can be turned off (dynamically) to save energy. Figure 7 shows three typical scenarios assuming three-cell baseband capability. Here, for illustration purposes only, a dynamic cell reconfiguration approach is used.

Claim 1 – Element	Verizon / Ericsson's Infringement

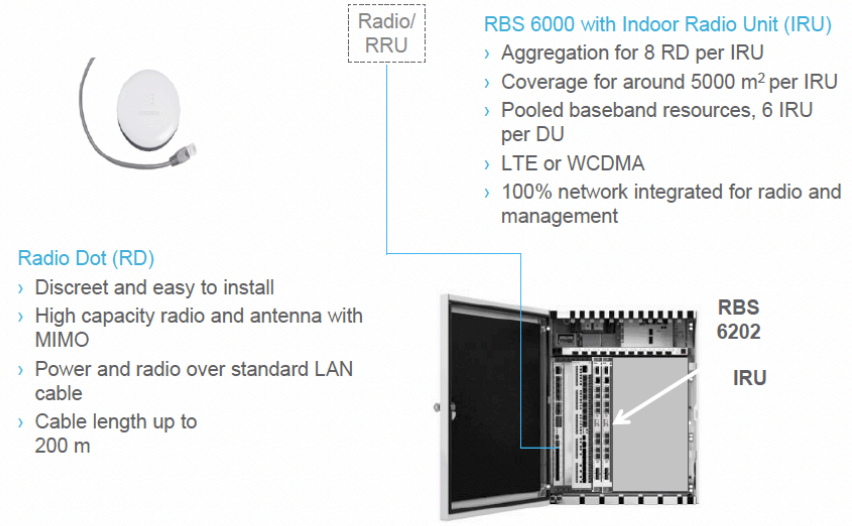
In the first scenario, three cells are distributed evenly to cover the indoor area, and each cell contains five radios. The second scenario covers the same space but includes two traffic hotspots. Here, the top cell is split into two smaller cells to provide higher capacity to the hotspots, while the rest of the area is covered by a single larger cell using the remaining baseband resources. In the third scenario, traffic demand is very low – a common situation late at night and early in the morning. To provide capacity for this low traffic scenario, the orignal three cells are combined into one large cell with only the selected radios active. All other radios (including the baseband resources involved) are inactive to save energy.

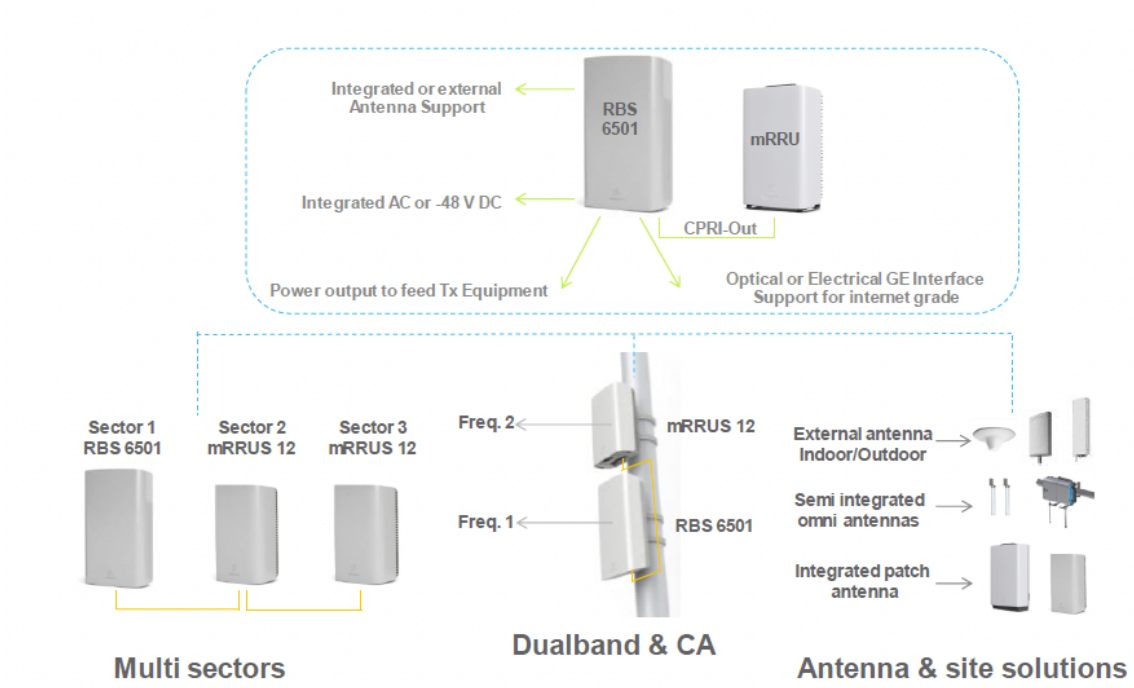


See DALIVZN-000001-10.

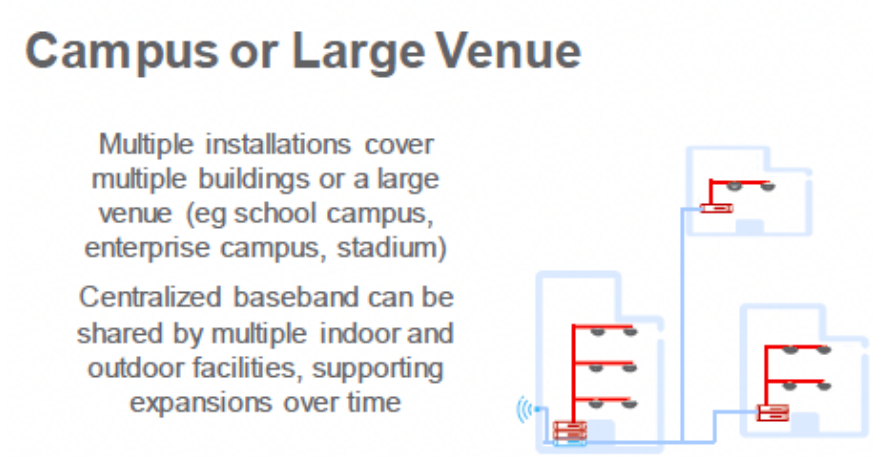
Claim 2 – Element	Verizon / Ericsson's Infringement
The wireless system of claim 1, wherein the change in need is determined based on a change in capacity needed by the number of wireless subscribers coupled to the second access point or a change in throughput needed by the number of wireless subscribers coupled to the second access point.	The Verizon / Ericsson Accused Instrumentalities satisfy this claim element. Ericsson's Radio Dot system meets the wireless system of claim 1, wherein the change in need is determined based on a change in capacity needed by the number of wireless subscribers coupled to the second access point or a change in throughput needed by the number of wireless subscribers coupled to the second access point. *See* **Claim Element 1-C** and **1-D**.

Claim 3 – Element	Verizon / Ericsson's Infringement
The wireless system of claim 1, wherein the additional resources are included in the first subset prior to being assigned to the second access point, and wherein the one or more central nodes assign the additional radio resources of the plurality of radio resources to the second access point comprises removing the additional resources from the first subset assigned to the first access point.	The Verizon / Ericsson Accused Instrumentalities satisfy this claim element. Ericsson's Radio Dot system meets the wireless system of claim 1, wherein the additional resources are included in the first subset prior to being assigned to the second access point, and wherein the one or more central nodes assign the additional radio resources of the plurality of radio resources to the second access point comprises removing the additional resources from the first subset assigned to the first access point. *See* **Claim Element 1-C** and **1-D**.

Claim 6 – Element	Verizon / Ericsson's Infringement
The wireless system of claim 1, wherein the first access point belongs to a first sector and the second access point belongs to a second sector.	The Verizon / Ericsson Accused Instrumentalities satisfy this claim element. Ericsson's Radio Dot system meets the wireless system of claim 1, wherein the first access point belongs to a first sector and the second access point belongs to a second sector. For example, one Ericsson Radio Dot access point can belong to one sector, and another access point can belong to another sector.  *Figure 7-22: Radio dot system* The IRU shall be based on an mRRU and initially support WCDMA and LTE FDD. The carriers generated by the DU are converted to an I/F-modulated frequency by the IRU and distributed to the Radio Dots (Radio Dot) on CAT cables. One IRU supports one sector which carriers are broadcast to all its connected Dots. DALIVZN-000235.

Claim 6 – Element	Verizon / Ericsson's Infringement
	 DALIVZN-000229.

Claim 7 – Element	Verizon / Ericsson's Infringement
The wireless system of claim 1, wherein the first access point belongs to a first building and the second access point belongs to a second building.	The Verizon / Ericsson Accused Instrumentalities satisfy this claim element. Ericsson's Radio Dot system meets the wireless system of claim 1, wherein the first access point belongs to a first building and the second access point belongs to a second building. For example, the Ericsson Radio Dot system can include one access point situated in one building and another access point situated in another building.

Claim 7 – Element	Verizon / Ericsson's Infringement
	 DALIVZN-000241.

Claim 8 – Element	Verizon / Ericsson's Infringement
The wireless system of claim 1, wherein at least one of the plurality of wireless access points enables communication between an IP device and the one or more central nodes.	The Verizon / Ericsson Accused Instrumentalities satisfy this claim element. Ericsson's Radio Dot system meets the wireless system of claim 1, wherein at least one of the plurality of wireless access points enables communication between an IP device and the one or more central nodes. *See* **Claim Element 1-B**.

Claim 12 – Element	Verizon / Ericsson's Infringement
[PREAMBLE] A method comprising:	To the extent the preamble is interpreted to be limiting, the Verizon / Ericsson Accused Instrumentalities satisfies this preamble. On information and belief, and based on publicly available information, the Verizon / Ericsson Accused Instrumentalities satisfy each and every limitation of claim 12 by performing the method of claim 12 as detailed here. *See* **Claim 1**. Further, this method is infringed by Verizon / Ericsson when the Verizon / Ericsson Accused Instrumentalities are tested and/or used by Verizon / Ericsson.
[ELEMENT 12-A] receiving a plurality of radio resources from an operator hub that operates using a Common Public Radio Interface (CPRI) protocol;	The Verizon / Ericsson Accused Instrumentalities satisfy this claim element. Ericsson's Radio Dot system receives a plurality of radio resources from an operator hub that operates using a Common Public Radio Interface (CPRI) protocol. *See* **Claim Element 1-A**.
[ELEMENT 12-B] assigning a first subset of the plurality of radio resources to a first access point included in a plurality of wireless access points and a second subset of the plurality of radio	The Verizon / Ericsson Accused Instrumentalities satisfy this claim element. Ericsson's Radio Dot system assigns a first subset of the plurality of radio resources to a first access point included in a plurality of wireless access points and a second subset of the plurality of radio resources to a second access point included in the plurality of wireless access points, the first subset including more radio resources than the second subset. *See* **Claim Element 1-C**.

Claim 12 – Element	Verizon / Ericsson's Infringement
resources to a second access point included in the plurality of wireless access points, the first subset including more radio resources than the second subset; and	
[ELEMENT 12-C] in response to a change in need of a number of wireless subscribers coupled to the second access point and which of the second subset is loaded beyond a threshold, assigning one or more additional radio resources of the plurality of radio resources to the second access point.	The Verizon / Ericsson Accused Instrumentalities satisfy this claim element. Ericsson's Radio Dot systemin response to a change in need of a number of wireless subscribers coupled to the second access point and which of the second subset is loaded beyond a threshold, assigns one or more additional radio resources of the plurality of radio resources to the second access point. *See* **Claim Element 1-D**.

Claim 13 – Element	Verizon / Ericsson's Infringement
The method of claim 12, wherein the change in need is determined based on a change in capacity needed by the number of wireless subscribers coupled to the second access point or a change in throughput needed by the	The Verizon / Ericsson Accused Instrumentalities satisfy this claim element. Ericsson's Radio Dot system performs the method of claim 12, wherein the change in need is determined based on a change in capacity needed by the number of wireless subscribers coupled to the second access point or a change in throughput needed by the number of wireless subscribers coupled to the second access point. *See* **Claim Element 1-D**.

Claim 13 – Element	Verizon / Ericsson's Infringement
number of wireless subscribers coupled to the second access point.	Further, this method is infringed by Verizon / Ericsson when the Verizon / Ericsson Accused Instrumentalities are tested and/or used by Verizon / Ericsson.

Claim 14 – Element	Verizon / Ericsson's Infringement
The method of claim 12, wherein the one or more additional resources are included in the first subset prior to being assigned to the second access point, and wherein assigning the one or more additional radio resources comprises removing the one or more additional resources from the first subset assigned to the first access point.	The Verizon / Ericsson Accused Instrumentalities satisfy this claim element. Ericsson's Radio Dot system performs the method of claim 12, wherein the one or more additional resources are included in the first subset prior to being assigned to the second access point, and wherein assigning the one or more additional radio resources comprises removing the one or more additional resources from the first subset assigned to the first access point. *See* **Claim Element 1-C**. Further, this method is infringed by Verizon / Ericsson when the Verizon / Ericsson Accused Instrumentalities are tested and/or used by Verizon / Ericsson.

Claim 16 – Element	Verizon / Ericsson's Infringement
The method of claim 12, where the first access point belongs to a first sector and the second access point belongs to a second sector.	The Verizon / Ericsson Accused Instrumentalities satisfy this claim element. Ericsson's Radio Dot system performs the method of claim 12, where the first access point belongs to a first sector and the second access point belongs to a second sector. *See* **Claim 6**. Further, this method is infringed by Verizon / Ericsson when the Verizon / Ericsson Accused Instrumentalities are tested and/or used by Verizon / Ericsson.

Claim 17 – Element	Verizon / Ericsson's Infringement
The method of claim 12, where the first access point belongs to a first building and the second access point belongs to a second building.	The Verizon / Ericsson Accused Instrumentalities satisfy this claim element. Ericsson's Radio Dot system performs the method of claim 12, where the first access point belongs to a first sector and the second access point belongs to a second sector. *See* **Claim 7**. Further, this method is infringed by Verizon / Ericsson when the Verizon / Ericsson Accused Instrumentalities are tested and/or used by Verizon / Ericsson.

Claim 18 – Element	Verizon / Ericsson's Infringement
The method of claim 12, wherein at least one of the plurality of wireless access points enables communication between an IP device and one or more central nodes.	The Verizon / Ericsson Accused Instrumentalities satisfy this claim element. Ericsson's Radio Dot system performs the method of claim 12, wherein at least one of the plurality of wireless access points enables communication between an IP device and one or more central nodes. *See* **Claim Element 1-B**. Further, this method is infringed by Verizon / Ericsson when the Verizon / Ericsson Accused Instrumentalities are tested and/or used by Verizon / Ericsson.

Claim 20 – Element	Verizon / Ericsson's Infringement
[PREAMBLE] One or more non-transitory computer readable storage media storing instructions that, when executed by one	To the extent the preamble is interpreted to be limiting, the Verizon / Ericsson Accused Instrumentalities satisfies this preamble. On information and belief, and based on publicly available information, the Verizon / Ericsson Accused Instrumentalities satisfy each and every limitation of claim 20 by including one or more non-

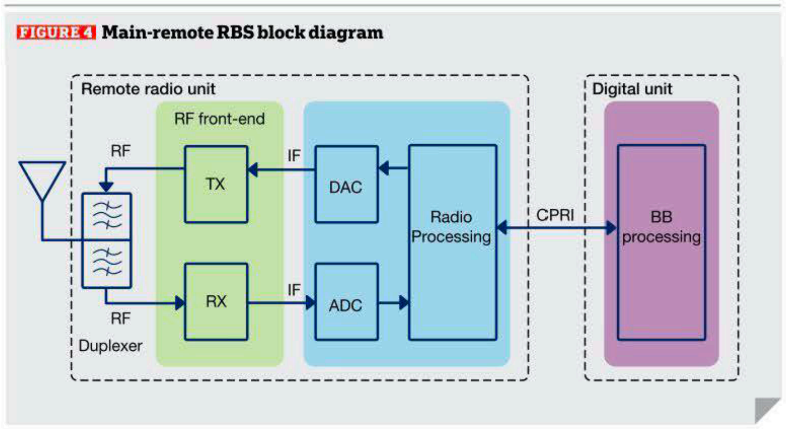
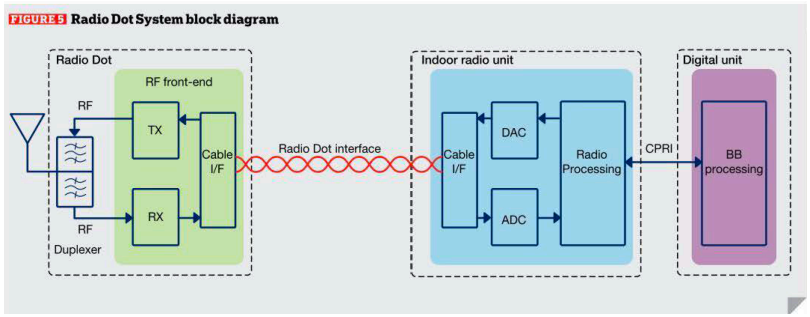
Claim 20 – Element	Verizon / Ericsson's Infringement
or more processors, cause the one or more processors to perform the steps of:	transitory computer readable storage media storing instructions that, when executed by one or more processors, cause the one or more processors to perform the steps of claim 20. *See* **Claim 1**.
[ELEMENT 20-A] receiving a plurality of radio resources from an operator hub that operates using a Common Public Radio Interface (CPRI) protocol;	The Verizon / Ericsson Accused Instrumentalities satisfy this claim element. Ericsson's Radio Dot system receives a plurality of radio resources from an operator hub that operates using a Common Public Radio Interface (CPRI) protocol. *See* **Claim Element 1-A**.
[ELEMENT 20-B] assigning a first subset of the plurality of radio resources to a first access point included in a plurality of wireless access points and a second subset of the plurality of radio resources to a second access point included in the plurality of wireless access points, the first subset including more radio resources than the second subset; and	The Verizon / Ericsson Accused Instrumentalities satisfy this claim element. Ericsson's Radio Dot system assigns a first subset of the plurality of radio resources to a first access point included in a plurality of wireless access points and a second subset of the plurality of radio resources to a second access point included in the plurality of wireless access points, the first subset including more radio resources than the second subset. *See* **Claim Element 1-C**.

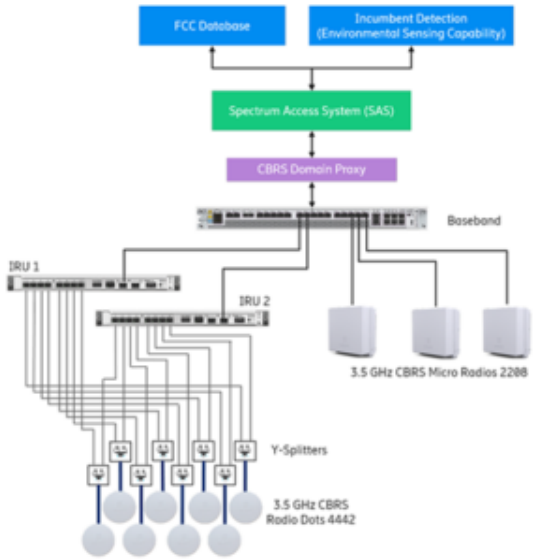
Claim 20 – Element	Verizon / Ericsson's Infringement
[ELEMENT 20-C] in response to a change in need by a number of wireless subscribers coupled to the second access point and which of the second subset is loaded beyond a threshold, assigning one or more additional radio resources of the plurality of radio resources to the second access point.	The Verizon / Ericsson Accused Instrumentalities satisfy this claim element. Ericsson's Radio Dot systemin response to a change in need by a number of wireless subscribers coupled to the second access point and which of the second subset is loaded beyond a threshold, assigns one or more additional radio resources of the plurality of radio resources to the second access point. *See* **Claim Element 1-D**.

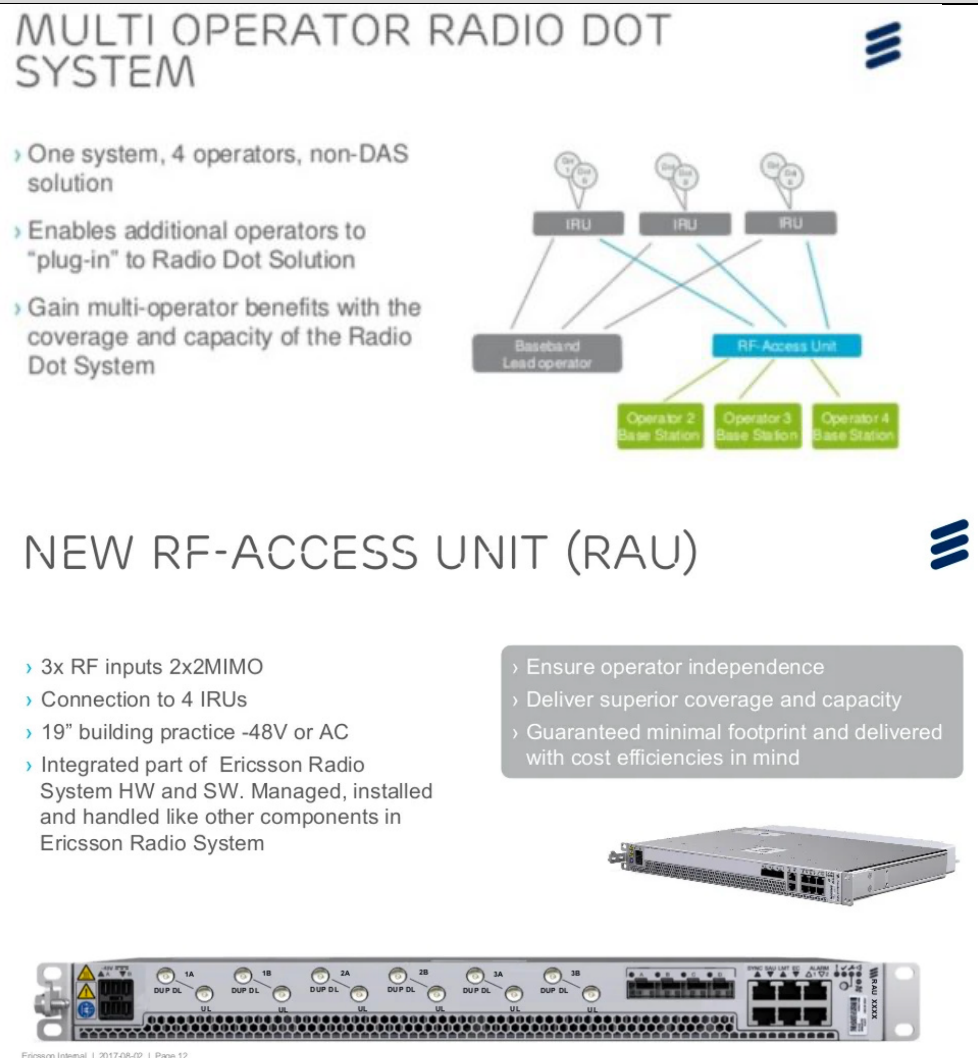
Exhibit F

Plaintiff Dali Wireless Inc. ("Dali") contends that Defendants Cellco Partnership d/b/a Verizon Wireless, Verizon Corporate Services Group Inc., Verizon Online LLC (collectively, "Verizon"), Ericsson Inc, and Telefonaktiebolaget LM Ericsson (collectively, "Ericsson") (altogether, "Verizon / Ericsson") infringe the below-identified claims of Dali's U.S. Patent No. 11,006,343 (the '343 Patent) by deploying, operating, maintaining, testing, and using Verizon's LTE and 5G networks which include equipment relating to small cell wireless solutions, such as Ericsson's Radio Dot System (including, but not limited to, the Digital Unit (DU), Indoor Radio Units (IRU) and Radio Dots (RD)), cabling and switches, and any software running thereon) (collectively, "Verizon / Ericsson Accused Instrumentalities"). The specific components, systems, and constructs identified in this chart are for exemplary purposes only and Dali reserves all rights to supplement as additional components, systems, and constructs become known through discovery, as well as after Verizon / Ericsson produces documents and source code and/or the Court construes any terms from the claims of the '343 Patent. Claims 1, 4, 8-10, 12, 15, and 19-21 are infringed under 35 U.S.C. § 271(a) when Verizon / Ericsson uses the Verizon / Ericsson wireless solutions.

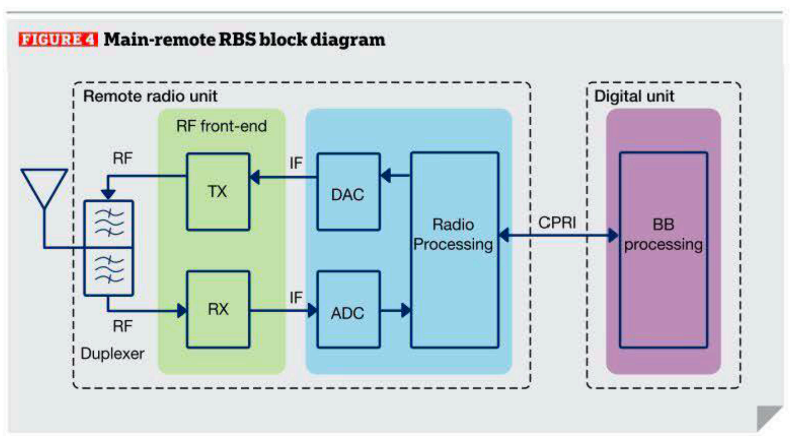
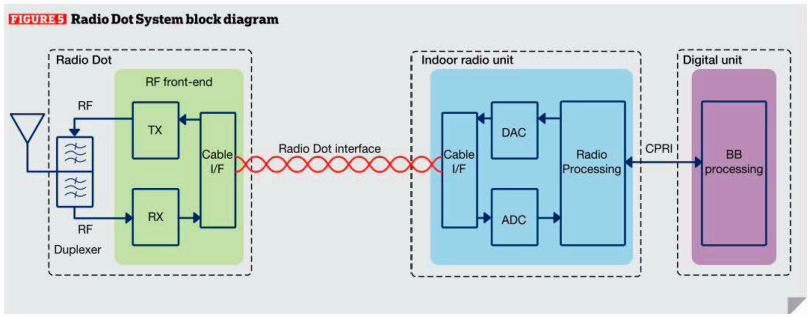
Claim 1 – Element	Verizon / Ericsson's Infringement
[PREAMBLE] A system to transport wireless communications, comprising	To the extent that the Court deems the preamble of Claim 1 to be limiting, the Verizon / Ericsson wireless solutions meets this claim element. Ericsson's Radio Dot System provides a system to transport wireless communications. For example, Ericsson's Radio Dot System "combines centralized baseband and radio units with visually low-impact antennas. Ericsson innovations enable RF signal, power and control over standard shielded LAN cables for cost-effective deployment with minimal business disruption." DALIVZN-000286. Moreover, Ericsson's Radio Dot System includes "centralized radios [which] provide pooled capacity and design flexibility, dynamically meeting demand wherever it occurs in real time while increasing spectral and hardware efficiency of the system." *Id.*
[ELEMENT 1-A] a digital access unit;	Verizon / Ericsson's wireless solutions meet this claim element. Ericsson's Radio Dot System comprises a digital access unit. For example, in Ericsson's Radio Dot System, the DU is the "signal source of the Radio Dot System and provides the pooled baseband resources for the building(s) or area." DALIVZN-000290.

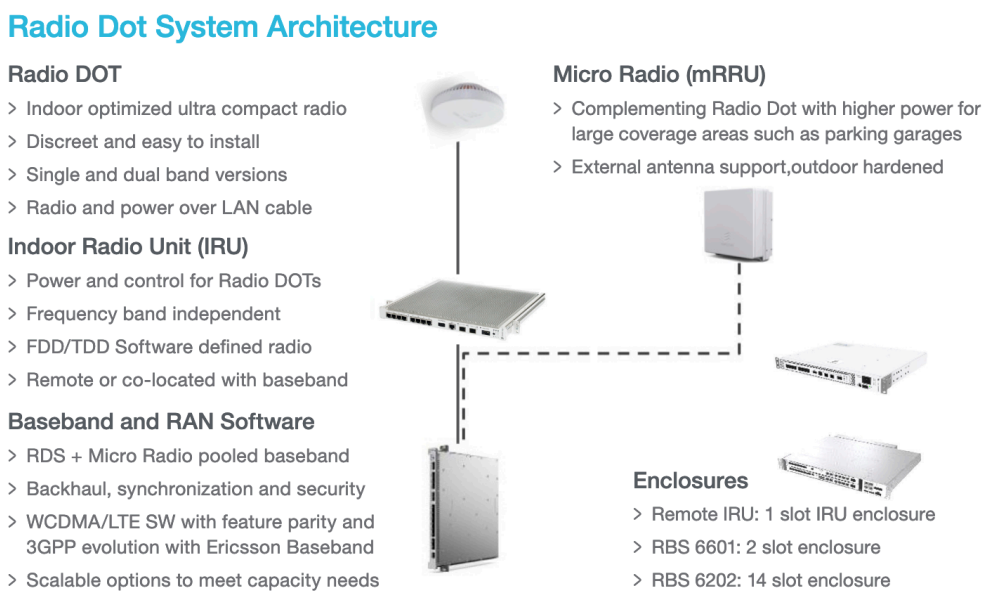
Claim 1 – Element	Verizon / Ericsson's Infringement
	Further, the DU is configured to communicate via CPRI with remote radio units, including Radio Dots and IRUs as shown below:   DALIVZN-000006 – 000007. As another example, as shown below, Ericsson's Radio Dot System includes a "Baseband" which is a digital access unit configured to communicate with the IRU, Radio Dots, and/or CBRS Micro Radios:

Claim 1 – Element	Verizon / Ericsson's Infringement
	 DALIVZN-000295. As yet another example, as shown below, the Ericsson Radio Dot System includes a "RF Access Unit" which is a digital access unit configured to communicate with the IRU and Radio Dots.

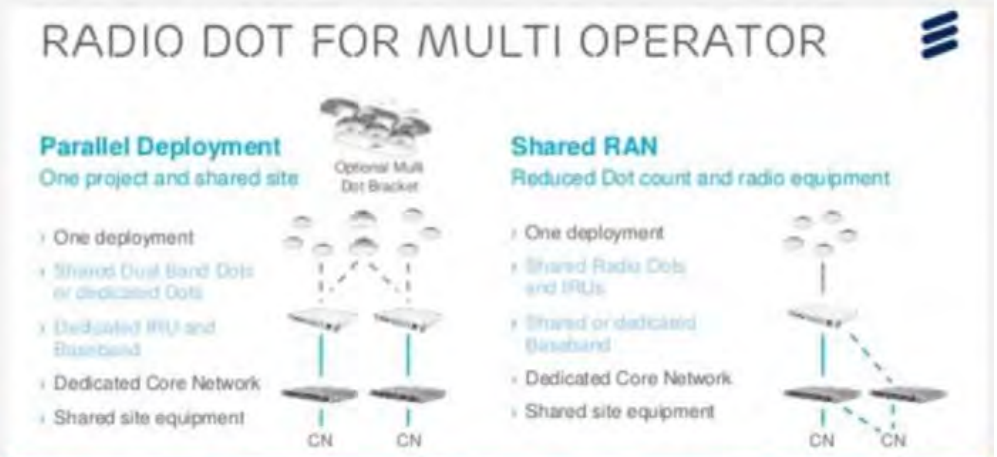
Claim 1 – Element	Verizon / Ericsson's Infringement
	 DALIVZN-000621.

Claim 1 – Element	Verizon / Ericsson's Infringement
[ELEMENT 1-B] a plurality of signal sources, including at least a first signal source and a second signal source;	Verizon / Ericsson's wireless solutions meet this claim element. Ericsson's Radio Dot System comprises a plurality of signal sources, including at least a first signal source and a second signal source. For example, Ericsson's Radio Dot System "consists of the Radio Dots, Baseband Units (DU) and Indoor Radio Unit(s) (IRU)." DALIVZN-000288. Ericsson describes the DU as the "signal source of the Radio Dot System and provides the pooled baseband resources for the building(s) or area." DALIVZN-000290. The "DU and IRU can be connected by fiber or co-located and connected through Digital CPRI cable." DALIVZN-000288. In certain circumstances, the "the digital unit is centrally located and the IRUs are distributed." DALIVZN-000291.
[ELEMENT 1-C] a plurality of remote units, including at least a first remote unit and a second remote unit;	Verizon / Ericsson's wireless solutions meet this claim element. Ericsson's Radio Dot System comprises a plurality of remote units, including at least a first remote unit and a second remote unit. For example, Ericsson's Radio Dot System includes "Radio Dots, Baseband Units (DU) and Indoor Radio Unit(s) (IRU)." DALIVZN-000288. Further, the IRU "is frequency independent and supports remote software upgrades. It supports and provides power for up to eight Radio Dots, corresponding to an equivalent of 70,000 square feet of floor space coverage in a typical office building. Individual Dots can be connected with up to 650 feet of LAN cable." DALIVZN-000289. As another example, Ericsson's Radio Dot System includes one or more remote radio units, such as Radio Dots with Indoor Radio Units (IRUs) as shown below:

Claim 1 – Element	Verizon / Ericsson's Infringement
	  DALIVZN-000006 – 000007. Remote radio units also include Radio Dots that do not require an IRU, such as the CBRS Micro Radio as shown below or the Micro Radio (mRRU):

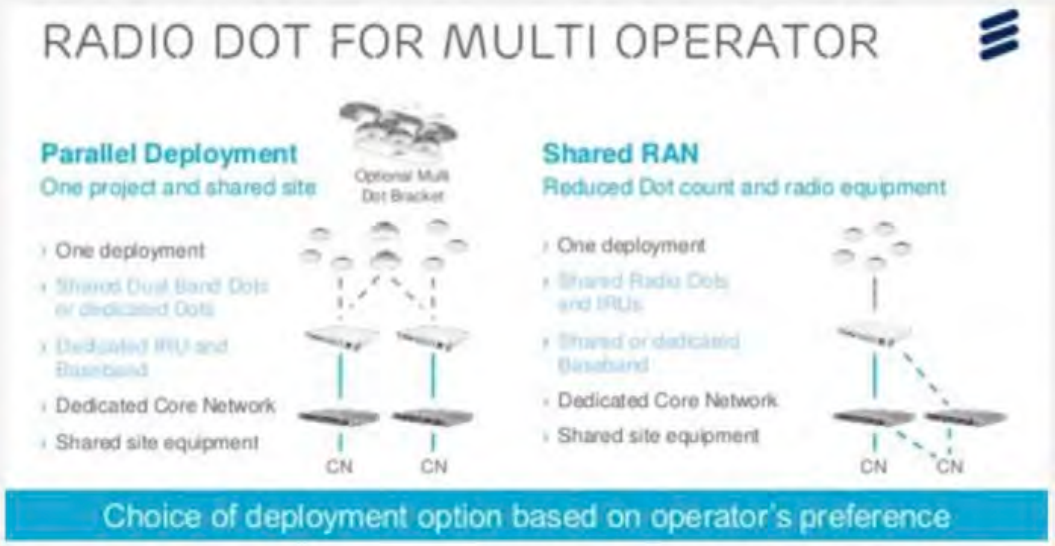
Claim 1 – Element	Verizon / Ericsson's Infringement
	 DALIVZN-000295.
[ELEMENT 1-D] wherein the digital access unit comprises a plurality of interfaces to communicatively couple the digital access unit to the plurality of signal sources;	Verizon / Ericsson's wireless solutions meet this claim element. The digital access unit in Ericsson's Radio Doty System comprises a plurality of interfaces to communicatively couple the digital access unit to the plurality of signal sources. For example, Ericsson's Radio Dot System includes "Radio Dots, Baseband Units (DU) and Indoor Radio Unit(s) (IRU)." DALIVZN-000288. Further, Ericsson's literature explains that the DU includes a plurality of interfaces to communicatively couple the digital access unit to the plurality of signal sources:

Claim 1 – Element	Verizon / Ericsson's Infringement
	Digital Unit (DU): The Baseband is the signal source of the Radio Dot System and provides the pooled baseband resources for the building(s) or area. The DU delivers feature parity and roadmap evolution with the macro network and supports key coordination features such as Carrier Aggregation and Combined Cell, vital for multi-antenna indoor deployments. As new features are added to the Ericsson RAN software, they are automatically available in every radio dot system deployment. The Baseband also provides synchronization and transport security functionality, and aggregates the RDS traffic onto a common backhaul connection. DALIVZN-000290. As another example, Ericsson has announced that the Radio Dot System supports multi-operator service in three ways:

Claim 1 – Element	Verizon / Ericsson's Infringement
	First – parallel deployments with each operator using its own dedicated baseband, IRU and Dots. These Dots can be housed in the same enclosures (the new enclosures known as the multi-dot bracket) to tidy things up a bit.  Parallel or shared RAN options Secondly – a multi-operator deployment using a shared baseband and IRU, over the same network of distributed radio heads, using MORAN (Multi Operator Radio Access Network) or MOCN (Multi Operator Core Network) network sharing capabilities. Thirdly, a multi-operator Dot solution where operators provide multiple RF sources to the same Dot system. They do this by feeding baseband capacity to a new access unit from Ericsson, the RF Access Unit (RAU). This new RAU can support three 2×2 MIMO RF inputs, and can be connected on the other side to four IRUs, which then feed the shared Dot remote radioheads. DALIVZN-000560; *see also* DALIVZN-000617.

Claim 1 – Element	Verizon / Ericsson's Infringement
[ELEMENT 1-E] wherein the digital access unit is configured to receive a plurality of radio resources from the first signal source and the second signal source;	Verizon / Ericsson's wireless solutions meet this claim element. The digital access unit in Ericsson's Radio Dot System is configured to receive a plurality of radio resources from the first signal source and the second signal source. For example, Ericsson's Radio Dot System includes "Radio Dots, Baseband Units (DU) and Indoor Radio Unit(s) (IRU)." DALIVZN-000288. Further, Ericsson's literature explains that the DU includes a plurality of interfaces to communicatively couple the digital access unit to the plurality of signal sources: **Digital Unit (DU):** The Baseband is the signal source of the Radio Dot System and provides the pooled baseband resources for the building(s) or area. The DU delivers feature parity and roadmap evolution with the macro network and supports key coordination features such as Carrier Aggregation and Combined Cell, vital for multi-antenna indoor deployments. As new features are added to the Ericsson RAN software, they are automatically available in every radio dot system deployment. The Baseband also provides synchronization and transport security functionality, and aggregates the RDS traffic onto a common backhaul connection. DALIVZN-000290. As another example, Ericsson has announced that the Radio Dot System supports multi-operator service in three ways:

First – parallel deployments with each operator using its own dedicated baseband, IRU and Dots. These Dots can be housed in the same enclosures (the new enclosures known as the multi-dot bracket) to tidy things up a bit.



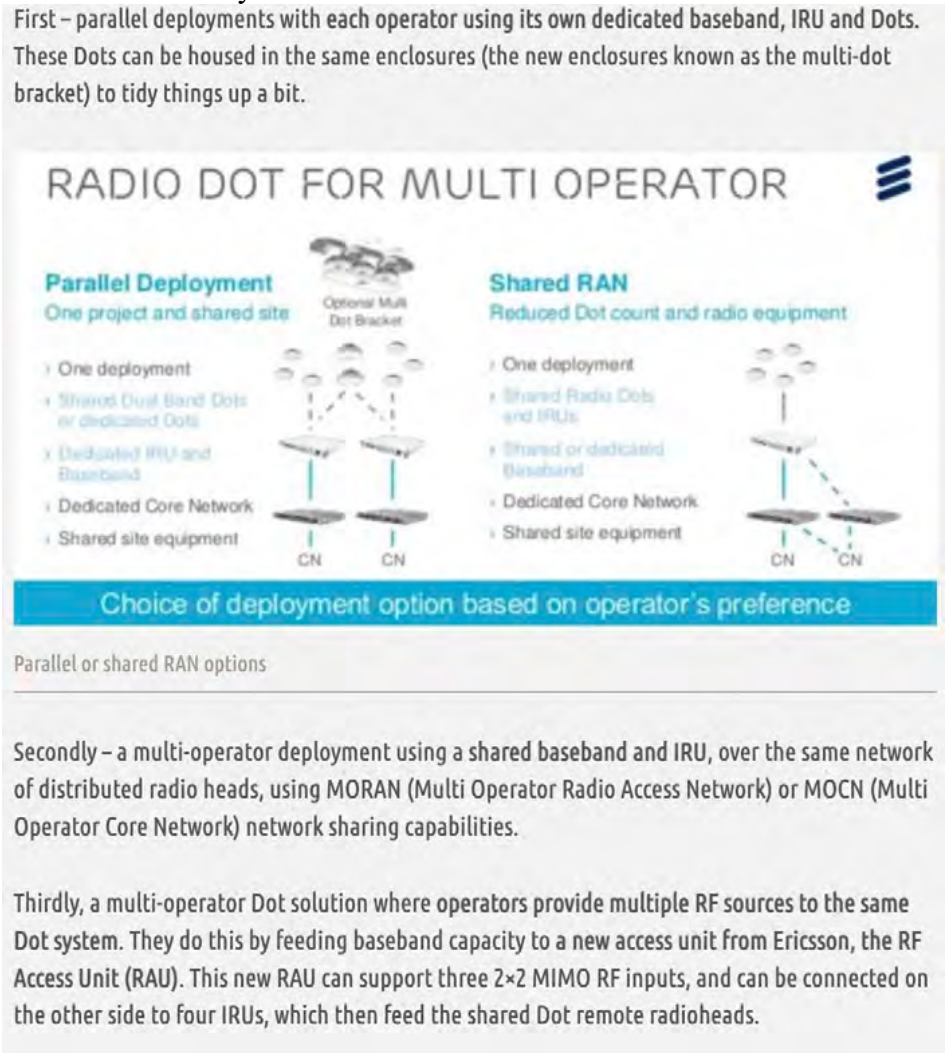
Parallel or shared RAN options

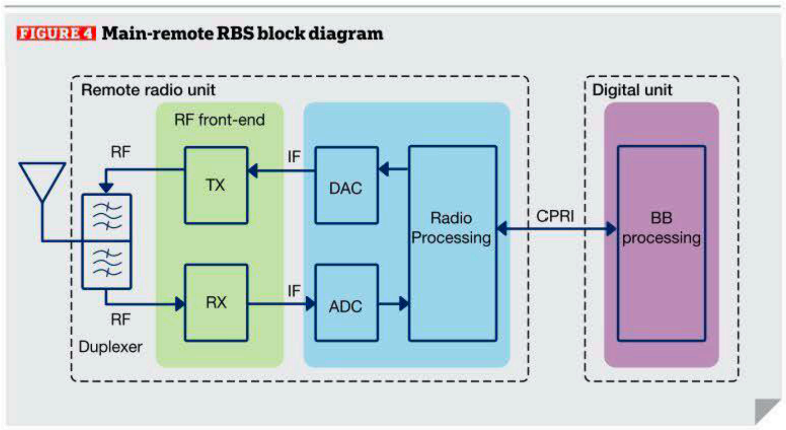
Secondly – a multi-operator deployment using a shared baseband and IRU, over the same network of distributed radio heads, using MORAN (Multi Operator Radio Access Network) or MOCN (Multi Operator Core Network) network sharing capabilities.

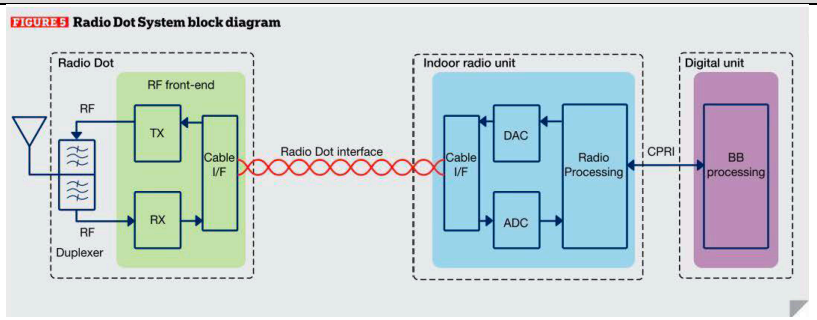
Thirdly, a multi-operator Dot solution where operators provide multiple RF sources to the same Dot system. They do this by feeding baseband capacity to a new access unit from Ericsson, the RF Access Unit (RAU). This new RAU can support three 2×2 MIMO RF inputs, and can be connected on the other side to four IRUs, which then feed the shared Dot remote radioheads.

DALIVZN-000560; *see also* DALIVZN-000617.

Claim 1 – Element	Verizon / Ericsson's Infringement
	Further, Ericsson's marketing materials explain that the DU of the Ericsson Radio Dot system "is the signal source of the Radio Dot System and provides the pooled baseband resources for the building(s) or area." DALIVZN-000290. These materials further explain that "centralized radios provide pooled capacity and design flexibility, dynamically meeting demand wherever it occurs in real time while increasing spectral and hardware efficiency of the system." DALIVZN-000286.
[ELEMENT 1-F] wherein the digital access unit is configured to send a digital representation of a first set of radio resources to the first remote unit at a first point in time, the first set of radio resources for transmission at an antenna of the first remote unit;	Verizon / Ericsson's wireless solutions meet this claim element. On information and belief, the digital access unit in Ericsson's Radio Dot System is configured to send a digital representation of a first set of radio resources to the first remote unit at a first point in time, the first set of radio resources for transmission at an antenna of the first remote unit. For example, Ericsson's Radio Dot System includes "Radio Dots, Baseband Units (DU) and Indoor Radio Unit(s) (IRU)." DALIVZN-000288. Ericsson's literature explains that the DU includes a plurality of interfaces to communicatively couple the digital access unit to the plurality of signal sources: **Digital Unit (DU):** The Baseband is the signal source of the Radio Dot System and provides the pooled baseband resources for the building(s) or area. The DU delivers feature parity and roadmap evolution with the macro network and supports key coordination features such as Carrier Aggregation and Combined Cell, vital for multi-antenna indoor deployments. As new features are added to the Ericsson RAN software, they are automatically available in every radio dot system deployment. The Baseband also provides synchronization and transport security functionality, and aggregates the RDS traffic onto a common backhaul connection. DALIVZN-000290.

Claim 1 – Element	Verizon / Ericsson's Infringement
	As another example, Ericsson has announced that the Radio Dot System supports multi-operator service in three ways:  DALIVZN-000560; *see also* DALIVZN-000617.

Claim 1 – Element	Verizon / Ericsson's Infringement
	Further, Ericsson's marketing materials explain that the DU of the Ericsson Radio Dot system "is the signal source of the Radio Dot System and provides the pooled baseband resources for the building(s) or area." DALIVZN-290. These materials further explain that "centralized radios provide pooled capacity and design flexibility, dynamically meeting demand wherever it occurs in real time while increasing spectral and hardware efficiency of the system." DALIVZN-000288. On information and belief, the DU is configured to send a digital representation of a first set of radio resources to the first remote unit at a first point in time, the first set of radio resources for transmission at an antenna of the first remote unit. For example, the DU is configured to communicate via CPRI with remote radio units, including Radio Dots and IRUs as shown below: 

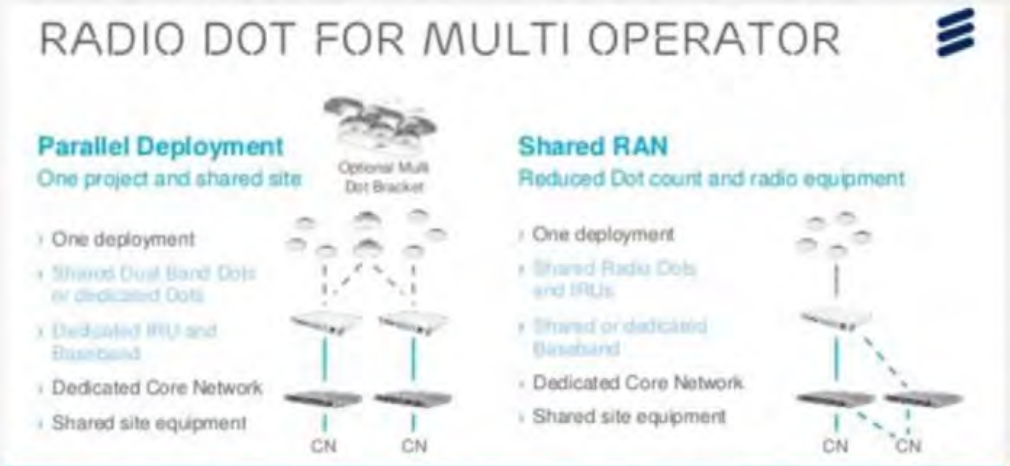
<table>
<tr><th>Claim 1 – Element</th><th>Verizon / Ericsson's Infringement</th></tr>
<tr><td></td><td> 

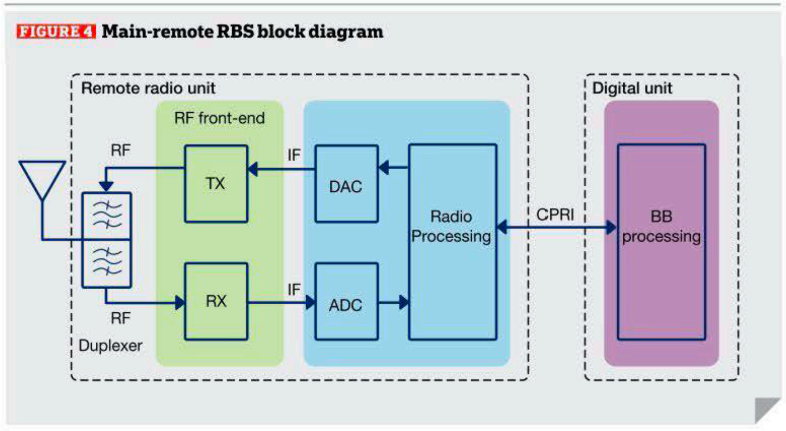
DALIVZN-000006 – 000007.

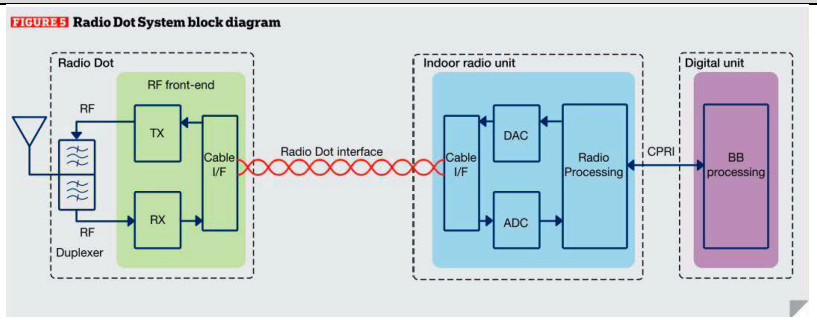
<table>
<tr><th>Indoor Radio Unit (IRU)</th><th>Digital Unit (DU) Baseband</th></tr>
<tr><td>31 millimeter Ericsson Radio System form factor</td><td>Ericsson Radio System baseband</td></tr>
<tr><td>Multitude of cabinet options available</td><td>Baseband options scaling from 3 to 24 IRU support</td></tr>
<tr><td>— Frequency band agnostic
— Up to 8 Radio Dots per IRU
— CPRI connectivity to baseband
— Traffic and interference management</td><td>Feature parity with WDCMA and LTE RAN functionality
— VoLTE & HD voice
— Regulatory compliance
— eMBMS
— Carrier aggregation
— Combined cell
— Soft handover</td></tr>
</table>
DALIVZN-000287.</td></tr>
<tr><td>[ELEMENT 1-G]
wherein the digital access unit is configured to send a digital representation of a second set of radio resources to the first remote unit at a second point in time, the second set of radio resources for transmission at the antenna of the first remote unit;</td><td>Verizon / Ericsson's wireless solutions meet this claim element. On information and belief, the digital access unit in Ericsson's Radio Dot System is configured to send a digital representation of a second set of radio resources to the first remote unit at a second point in time, the second set of radio resources for transmission at the antenna of the first remote unit.

For example, Ericsson's Radio Dot System includes a DU which is Ericsson's Radio Dot System includes "Radio Dots, Baseband Units (DU) and Indoor Radio Unit(s) (IRU)." DALIVZN-000288. Ericsson's literature explains that the DU includes a plurality of interfaces to communicatively couple the digital access unit to the plurality of signal sources:</td></tr>
</table>

Claim 1 – Element	Verizon / Ericsson's Infringement
	Digital Unit (DU): The Baseband is the signal source of the Radio Dot System and provides the pooled baseband resources for the building(s) or area. The DU delivers feature parity and roadmap evolution with the macro network and supports key coordination features such as Carrier Aggregation and Combined Cell, vital for multi-antenna indoor deployments. As new features are added to the Ericsson RAN software, they are automatically available in every radio dot system deployment. The Baseband also provides synchronization and transport security functionality, and aggregates the RDS traffic onto a common backhaul connection. DALIVZN-000290. As another example, Ericsson has announced that the Radio Dot System supports multi-operator service in three ways:

Claim 1 – Element	Verizon / Ericsson's Infringement
	First – parallel deployments with each operator using its own dedicated baseband, IRU and Dots. These Dots can be housed in the same enclosures (the new enclosures known as the multi-dot bracket) to tidy things up a bit.  Parallel or shared RAN options Secondly – a multi-operator deployment using a shared baseband and IRU, over the same network of distributed radio heads, using MORAN (Multi Operator Radio Access Network) or MOCN (Multi Operator Core Network) network sharing capabilities. Thirdly, a multi-operator Dot solution where operators provide multiple RF sources to the same Dot system. They do this by feeding baseband capacity to a new access unit from Ericsson, the RF Access Unit (RAU). This new RAU can support three 2×2 MIMO RF inputs, and can be connected on the other side to four IRUs, which then feed the shared Dot remote radioheads. DALIVZN-000560; *see also* DALIVZN-000617.

Claim 1 – Element	Verizon / Ericsson's Infringement
	Further, Ericsson's marketing materials explain that the DU of the Ericsson Radio Dot system "is the signal source of the Radio Dot System and provides the pooled baseband resources for the building(s) or area." DALIVZN-000290. These materials further explain that "centralized radios provide pooled capacity and design flexibility, dynamically meeting demand wherever it occurs in real time while increasing spectral and hardware efficiency of the system." DALIVZN-000288. On information and belief, the DU is configured to send a digital representation of a second set of radio resources to the first remote unit at a second point in time, the second set of radio resources for transmission at an antenna of the first remote unit. For example, the DU is configured to communicate via CPRI with remote radio units, including Radio Dots and IRUs as shown below: 

<table>
<tr><th>Claim 1 – Element</th><th>Verizon / Ericsson's Infringement</th></tr>
<tr><td></td><td> 

DALIVZN-000006 – 000007.

<table>
<tr><th>Indoor Radio Unit (IRU)</th><th>Digital Unit (DU) Baseband</th></tr>
<tr><td>31 millimeter Ericsson Radio System form factor</td><td>Ericsson Radio System baseband</td></tr>
<tr><td>Multitude of cabinet options available</td><td>Baseband options scaling from 3 to 24 IRU support</td></tr>
<tr><td>— Frequency band agnostic
— Up to 8 Radio Dots per IRU
— CPRI connectivity to baseband
— Traffic and interference management</td><td>Feature parity with WDCMA and LTE RAN functionality
— VoLTE & HD voice
— Regulatory compliance
— eMBMS
— Carrier aggregation
— Combined cell
— Soft handover</td></tr>
</table>
DALIVZN-000287.</td></tr>
<tr><td>[ELEMENT 1-H]
wherein a number of radio resources in the first set of radio resources is different from a number of radio resources in the second set of radio resources at least based on dynamic load balancing and resource management; and</td><td>Verizon / Ericsson's wireless solutions meet this claim element. For example, as explained above in ELEMENTS [1-F] and [1G], Ericsson's Radio Dot system is configured to a first a first set of radio resources and a second set of radio resources to a first remote unit. On information and belief, Ericsson's Radio Dot System is further configured to send a number of radio resources in the first set of radio resources that is different from a number of radio resources in the second set of radio resources at least based on dynamic load balancing and resource management.

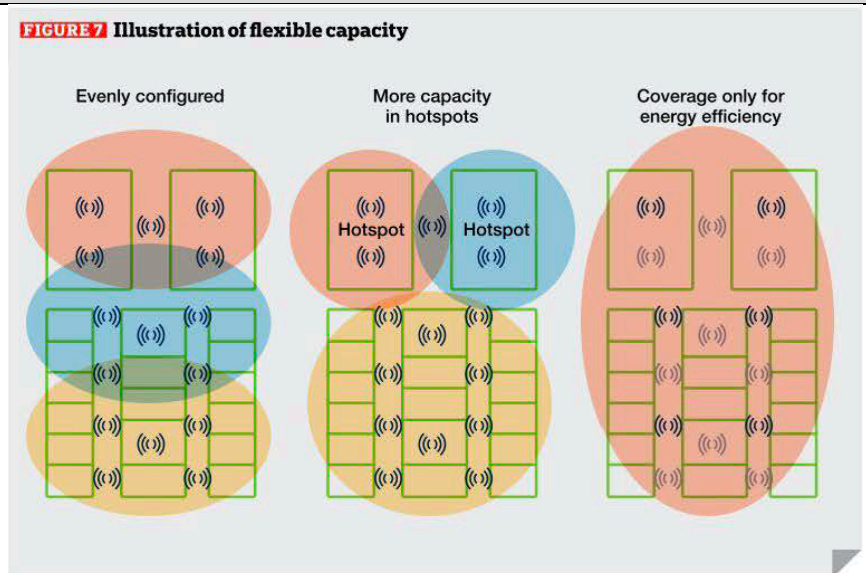
For example, Ericsson's Radio Dot System can dynamically adjust to maintain efficiency: "centralized radios provide pooled capacity and design flexibility, dynamically meeting demand wherever it occurs in real time while increasing spectral and hardware efficiency of the system." DALIVZN-000287.</td></tr>
</table>

Claim 1 – Element	Verizon / Ericsson's Infringement
	Moreover, Ericsson explains that "[t]he capability to configure, scale, and reconfigure logical nodes through software commands enables the RAN to dynamically adjust to changing traffic conditions, hardware faults, as well as new service requirements." DALIVZN-000293. Ericsson also states that "[w]ithout RDS, high traffic demand generated indoors consumes a substantial amount of the radio resources of the surrounding outdoor macro cells. Deploying RDS in large high-traffic enterprises offloads the macro layer and serves the indoors more efficiently." DALIVZN-000291. As another example, Ericsson's U.S. Pat. No. 9,591,590, which describes the Accused Radio Dot System, describes load balancing between cells. *See* U.S. Pat. No. 9,591,590 at 7:1-3, 16:58-63. As another example, Ericsson's publicly available materials describe "flexible capacity" of "dynamically cell reconfiguration" based on load on the system and, upon information and belief, this is done based on load:

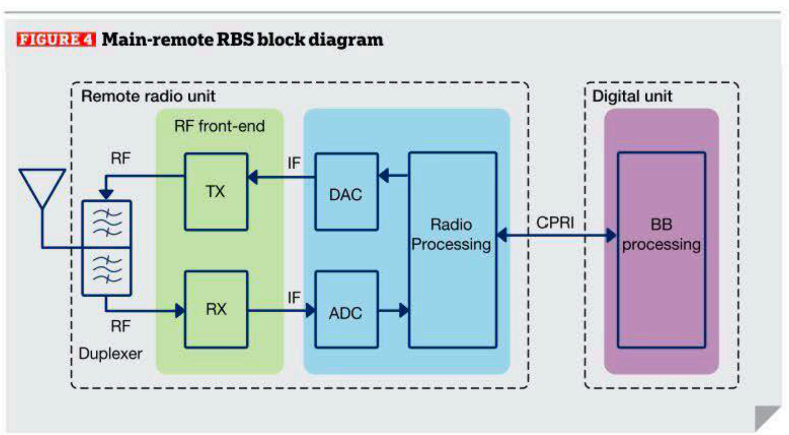
Claim 1 – Element	Verizon / Ericsson's Infringement
	Evolution to flexible capacity Indoor traffic demand tends to vary over time and space, particularly in enterprise and public environments. For example, traffic demand regularly increases over the course of a day in areas where many people gather, such as in conference rooms, cafeterias, and lobbies. This high traffic demand disappears once people leave. Evenly distributing high capacity in a building for its peak use is not the best approach, as this tends to result in overprovisioning capacity.

Claim 1 – Element	Verizon / Ericsson's Infringement
	As the RDS uses centralized baseband architecture, it can provide capacity in a more flexible way – by shifting available capacity from one place to another on demand. This can be implemented through dynamic cell reconfiguration (such as, traditional cell splitting and combining) or by using combined cell SDMA technology. For LTE Rel-10/11 UEs, combined cell SDMA is the desired approach for dynamic SDMA operations in one cell involving all the radios. This approach enables efficient use of the available baseband capacity, optimizing both network capacity and mobility, resulting in an improved user experience. Overlapping radios can be turned off (dynamically) to save energy. Figure 7 shows three typical scenarios assuming three-cell baseband capability. Here, for illustration purposes only, a dynamic cell reconfiguration approach is used.

Claim 1 – Element	Verizon / Ericsson's Infringement
	In the first scenario, three cells are distributed evenly to cover the indoor area, and each cell contains five radios. The second scenario covers the same space but includes two traffic hotspots. Here, the top cell is split into two smaller cells to provide higher capacity to the hotspots, while the rest of the area is covered by a single larger cell using the remaining baseband resources. In the third scenario, traffic demand is very low – a common situation late at night and early in the morning. To provide capacity for this low traffic scenario, the orignal three cells are combined into one large cell with only the selected radios active. All other radios (including the baseband resources involved) are inactive to save energy.

Claim 1 – Element	Verizon / Ericsson's Infringement
	 DALIVZN-000008.
[ELEMENT 1-I] wherein the digital access unit is configured to receive digital signals from each of the plurality of remote units.	Verizon / Ericsson's wireless solutions meet this claim element. For example, as explained above in **ELEMENTS [1-F] and [1G]**, the digital access unit in Ericsson's Radio Dot system is configured to send digital representations of radio resources to a remote unit. The digital access unit in Ericsson's Radio Dot System is also configured to receive digital signals from each of the plurality of remote units. For example, the DU is configured to communicate by sending and receiving signals via CPRI with remote radio units, including Radio Dots and IRUs as shown below:

Claim 1 – Element	Verizon / Ericsson's Infringement



DALIVZN-000006 – 000007.

Indoor Radio Unit (IRU)	Digital Unit (DU) Baseband
31 millimeter Ericsson Radio System form factor	Ericsson Radio System baseband
Multitude of cabinet options available	Baseband options scaling from 3 to 24 IRU support
— Frequency band agnostic — Up to 8 Radio Dots per IRU — CPRI connectivity to baseband — Traffic and interference management	Feature parity with WDCMA and LTE RAN functionality — VoLTE & HD voice — Regulatory compliance — eMBMS — Carrier aggregation — Combined cell — Soft handover

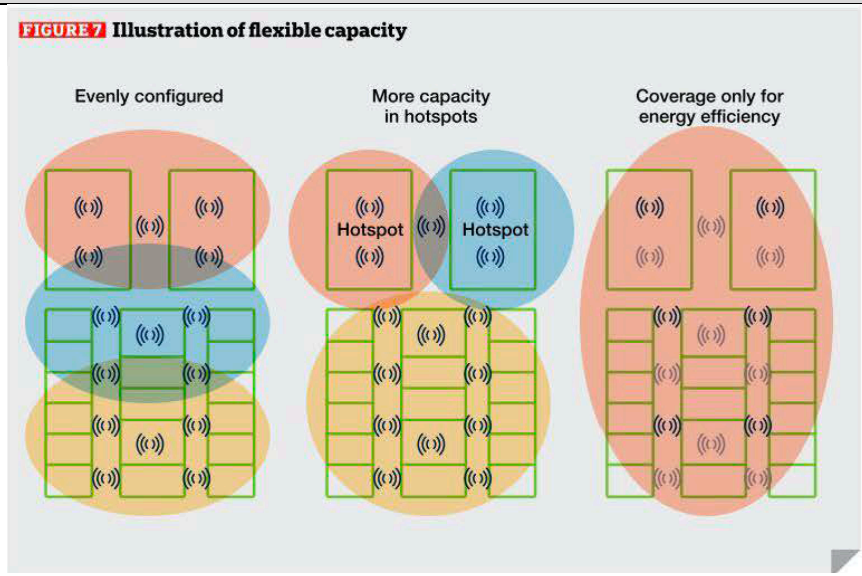
DALIVZN-000287.

Claim 4	Verizon / Ericsson's Infringement
The system of claim 1, wherein the dynamic load balancing and resource management dynamically adjusts a capacity of at least the first remote unit.	Verizon / Ericsson's wireless solutions meet this claim element. *See* **Claim 1**, *supra*. On information and belief, the digital access unit in Ericsson's Radio Dot System is configured to send a number of radio resources in the first set of radio resources that is different from a number of radio resources in the second set of radio resources at least based on dynamic load balancing and resource management, wherein the dynamic load balancing and resource management dynamically adjusts the capacity of at least the first remote unit. For example, Ericsson's Radio Dot System can dynamically adjust to maintain efficiency: "centralized radios provide pooled capacity and design flexibility, dynamically meeting demand wherever it occurs in real time while increasing spectral and hardware efficiency of the system." DALIVZN-000286. Moreover, Ericsson explains that "[t]he capability to configure, scale, and reconfigure logical nodes through software commands enables the RAN to dynamically adjust to changing traffic conditions, hardware faults, as well as new service requirements." DALIVZN-000293. Ericsson also states that "[w]ithout RDS, high traffic demand generated indoors consumes a substantial amount of the radio resources of the surrounding outdoor macro cells. Deploying RDS in large high-traffic enterprises offloads the macro layer and serves the indoors more efficiently." DALIVZN-000291. As another example, Ericsson's U.S. Pat .No. 9,591,590, which describes the Accused Radio Dot System, describes load balancing between cells. U.S. Pat. No. 9,591,590 at 7:1-3, 16:58-63. As another example, Ericsson Review describes "flexible capacity" of "dynamically cell reconfiguration" based on load on the system, and upon information and belief, this is done based on load:

Claim 4	Verizon / Ericsson's Infringement
	Evolution to flexible capacity Indoor traffic demand tends to vary over time and space, particularly in enterprise and public environments. For example, traffic demand regularly increases over the course of a day in areas where many people gather, such as in conference rooms, cafeterias, and lobbies. This high traffic demand disappears once people leave. Evenly distributing high capacity in a building for its peak use is not the best approach, as this tends to result in overprovisioning capacity.

Claim 4	Verizon / Ericsson's Infringement
	As the RDS uses centralized baseband architecture, it can provide capacity in a more flexible way – by shifting available capacity from one place to another on demand. This can be implemented through dynamic cell reconfiguration (such as, traditional cell splitting and combining) or by using combined cell SDMA technology. For LTE Rel-10/11 UEs, combined cell SDMA is the desired approach for dynamic SDMA operations in one cell involving all the radios. This approach enables efficient use of the available baseband capacity, optimizing both network capacity and mobility, resulting in an improved user experience. Overlapping radios can be turned off (dynamically) to save energy. Figure 7 shows three typical scenarios assuming three-cell baseband capability. Here, for illustration purposes only, a dynamic cell reconfiguration approach is used.

Claim 4	Verizon / Ericsson's Infringement
	In the first scenario, three cells are distributed evenly to cover the indoor area, and each cell contains five radios. The second scenario covers the same space but includes two traffic hotspots. Here, the top cell is split into two smaller cells to provide higher capacity to the hotspots, while the rest of the area is covered by a single larger cell using the remaining baseband resources. In the third scenario, traffic demand is very low – a common situation late at night and early in the morning. To provide capacity for this low traffic scenario, the orignal three cells are combined into one large cell with only the selected radios active. All other radios (including the baseband resources involved) are inactive to save energy.

Claim 4	Verizon / Ericsson's Infringement
	 DALIVZN-000008.

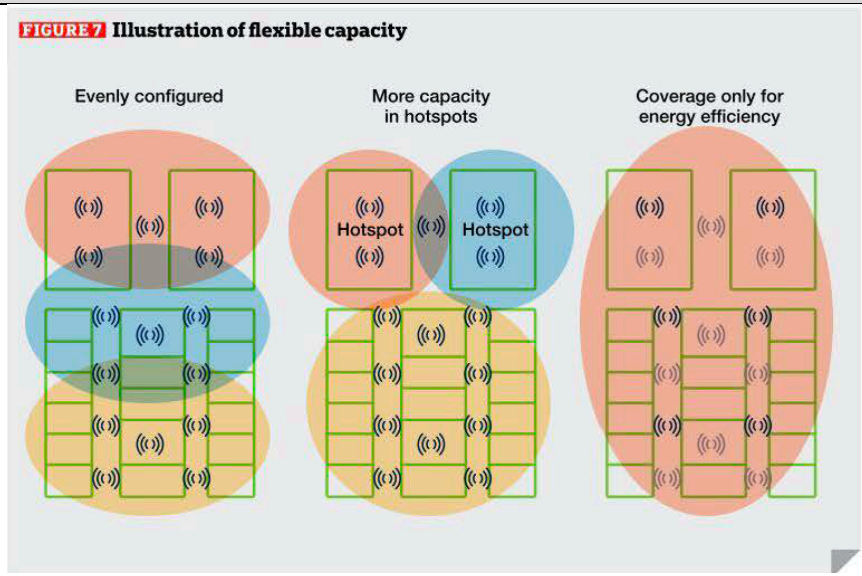
Claim 8	Verizon / Ericsson's Infringement
The system of claim 1, wherein the dynamic load balancing and resource management uses network capacity to route signal traffic in the system.	Verizon / Ericsson's wireless solutions meet this claim element. *See* **Claim 1**, *supra*. On information and belief, the digital access unit in Ericsson's Radio Dot System is configured to send a number of radio resources in the first set of radio resources that is different from a number of radio resources in the second set of radio resources at least based on dynamic load balancing and resource management, wherein the dynamic load balancing and resource management uses network capacity to route signal traffic in the system. For example, Ericsson's Radio Dot System can dynamically adjust to maintain efficiency: "centralized radios provide pooled capacity and design flexibility, dynamically meeting demand wherever it occurs in real time while increasing spectral and hardware efficiency of the system." DALIVZN-000286.

Claim 8	Verizon / Ericsson's Infringement
	Moreover, Ericsson explains that "[t]he capability to configure, scale, and reconfigure logical nodes through software commands enables the RAN to dynamically adjust to changing traffic conditions, hardware faults, as well as new service requirements." DALIVZN-000293. Ericsson also states that "[w]ithout RDS, high traffic demand generated indoors consumes a substantial amount of the radio resources of the surrounding outdoor macro cells. Deploying RDS in large high-traffic enterprises offloads the macro layer and serves the indoors more efficiently." DALIVZN-000291. As another example, Ericsson's U.S. Pat. No. 9,591,590, which describes the Accused Radio Dot System, describes load balancing between cells. U.S. Pat. No. 9,591,590 at 7:1-3, 16:58-63. As another example, Ericsson Review describes "flexible capacity" of "dynamically cell reconfiguration" based on load on the system, and upon information and belief, this is done based on load:

Claim 8	Verizon / Ericsson's Infringement
	Evolution to flexible capacity Indoor traffic demand tends to vary over time and space, particularly in enterprise and public environments. For example, traffic demand regularly increases over the course of a day in areas where many people gather, such as in conference rooms, cafeterias, and lobbies. This high traffic demand disappears once people leave. Evenly distributing high capacity in a building for its peak use is not the best approach, as this tends to result in overprovisioning capacity.

Claim 8	Verizon / Ericsson's Infringement
	As the RDS uses centralized baseband architecture, it can provide capacity in a more flexible way – by shifting available capacity from one place to another on demand. This can be implemented through dynamic cell reconfiguration (such as, traditional cell splitting and combining) or by using combined cell SDMA technology. For LTE Rel-10/11 UEs, combined cell SDMA is the desired approach for dynamic SDMA operations in one cell involving all the radios. This approach enables efficient use of the available baseband capacity, optimizing both network capacity and mobility, resulting in an improved user experience. Overlapping radios can be turned off (dynamically) to save energy. Figure 7 shows three typical scenarios assuming three-cell baseband capability. Here, for illustration purposes only, a dynamic cell reconfiguration approach is used.

Claim 8	Verizon / Ericsson's Infringement
	In the first scenario, three cells are distributed evenly to cover the indoor area, and each cell contains five radios. The second scenario covers the same space but includes two traffic hotspots. Here, the top cell is split into two smaller cells to provide higher capacity to the hotspots, while the rest of the area is covered by a single larger cell using the remaining baseband resources. In the third scenario, traffic demand is very low – a common situation late at night and early in the morning. To provide capacity for this low traffic scenario, the orignal three cells are combined into one large cell with only the selected radios active. All other radios (including the baseband resources involved) are inactive to save energy.

Claim 8	Verizon / Ericsson's Infringement
	 DALIVZN-000008.

Claim 9	Verizon / Ericsson's Infringement
The system of claim 1, wherein the first remote unit is a low power radio capable of using multiple frequency bands.	Verizon / Ericsson's wireless solutions meet this claim element. *See* **Claim 1**, *supra*. Ericsson's Radio Dot System comprises remote units, wherein the first remote unit is a low power radio capable of using multiple frequency bands. For example, Ericsson's Radio Dot System includes at least Dual Band Dots, which are low power and capable of using multiple frequency bands:

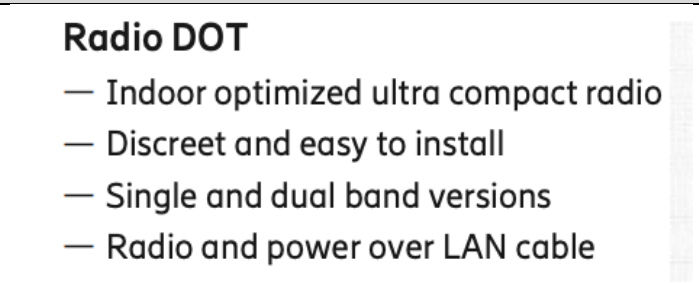
Claim 9	Verizon / Ericsson's Infringement

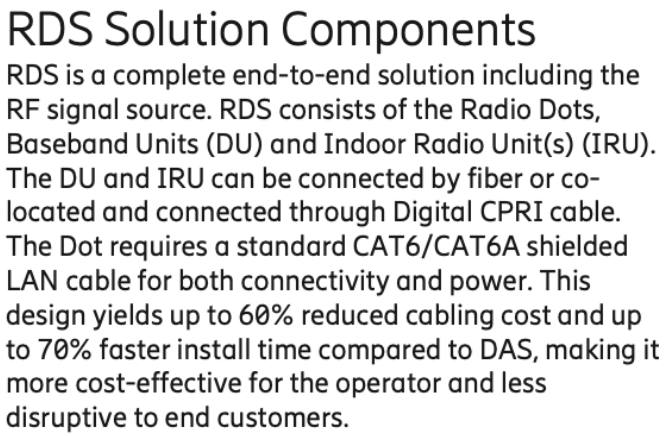
Radio Dot System (RDS)	Single Band Dot	Dual Band Dot
Size and weight	3.9" diameter, 10 ounces	5.5" diameter, 16.8 ounces
RF power	17 + 17 dBm 2x2 MIMO, Tx/Rx diversity 2x1 MISO, WCDMA common precoding	2 x 17 dBm (per band) 2x2 MIMO, Tx/Rx diversity (per band) 2x1 MISO (per band)
Instantaneous Bandwidth (IBW)	40 MHz	80 MHz (40 MHz per band)
Omni-directional antenna	Built-in	
Technology	WCDMA, LTE FDD, LTE TDD, LTE on CBRS	
Bands supported	Full range of North American WCDMA and LTE bands including CBRS band 48. For additional details contact your Ericsson representative	
Data speeds	LTE: 400/100 Mbps with 2x20 MHz WCDMA: 42/11 Mbps with 4x5 MHz	LTE: 400/100 Mbps per band with 2x20 MHz, 256QAM WCDMA: 42/11 Mbps with 4x5 MHz WCDMA carrier
Radio Dot Interface	Connection between IRU and RD over standard shielded LAN cables for radio signals, control channel and power	
Cable length to IRU	Up to 650 feet	

DALIVZN-000287.

— Equipment – small footprint and low power consumption in equipment room with less stringent HVAC requirements. Low visual impact for Radio Dots

DALIVZN-000286.

Claim 9	Verizon / Ericsson's Infringement
	 DALIVZN-000287.

Claim 10	Verizon / Ericsson's Infringement
The system of claim 1, wherein the digital signals communicated between the digital access unit and the remote units are sent via optical cables.	Verizon / Ericsson's wireless solutions meet this claim element. *See* **Claim 1**, *supra*. On information and belief, Ericsson's Radio Dot System includes a digital access unit, wherein the digital signals communicated between the digital access unit and the remote units are sent via optical cables. For example, Ericsson's Radio Dot System can use optical cables to communicate digital signals between the digital access unit and the remote units:  DALIVZN-000288.

Claim 10	Verizon / Ericsson's Infringement
	Distributed architecture For extremely large buildings, multi building campuses and large arenas, a more distributed solution is recommended. In these cases the digital unit is centrally located and the IRUs are distributed. Fiber is used to connect the DU to the IRUs. Buildings can be segmented, with IRU hubs located to serve large sections while minimizing the amount of fiber required. DALIVZN-000291.

Claim 12 - Element	Verizon / Ericsson's Infringement
[PREAMBLE] A method for wireless communications comprising:	To the extent that the Court deems the preamble of Claim 12 to be limiting, Verizon / Ericsson's wireless solutions meet this claim element. Ericsson's Radio Dot System provides a method for wireless communications. *See* **Claim 1 – [PREAMBLE]**, *supra.* Further, this method is infringed by Verizon / Ericsson when Ericsson Radio Dot systems are tested and/or used by Verizon / Ericsson.
[ELEMENT 12-A] receiving, at a digital access unit, a plurality of radio resources from a first signal source and a second signal source, wherein the digital access unit comprises a plurality of interfaces to communicatively couple the digital access unit to a plurality of signal sources;	Verizon / Ericsson's wireless solutions meet this claim element. Ericsson's Radio Dot System includes a digital access unit that receives a plurality of radio resources from a first signal source and a second signal source, wherein the digital access unit comprises a plurality of interfaces to communicatively couple the digital access unit to a plurality of signal sources. *See* **Claim 1 – [ELEMENT 1-A]** through **[ELEMENT 1-E]**, *supra*. Further, this method is infringed by Verizon / Ericsson when Ericsson Radio Dot systems are tested and/or used by Verizon / Ericsson.

Claim 12 - Element	Verizon / Ericsson's Infringement
[ELEMENT 12-B] sending, by the digital access unit, a digital representation of a first set of radio resources to a first remote unit at a first point in time, the first set of radio resources for transmission at an antenna of the first remote unit; and	Verizon / Ericsson's wireless solutions meet this claim element. Ericsson's Radio Dot System includes a digital access unit which sends a digital representation of a first set of radio resources to a first remote unit at a first point in time, the first set of radio resources for transmission at an antenna of the first remote unit. *See* **Claim 1 – [ELEMENT 1-F]**, *supra*. Further, this method is infringed by Verizon / Ericsson when Ericsson Radio Dot systems are tested and/or used by Verizon / Ericsson.
[ELEMENT 12-C] sending, by the digital access unit, a digital representation of a second set of radio resources to the first remote unit at a second point in time, the second set of radio resources for transmission at the antenna of the first remote unit,	Verizon / Ericsson's wireless solutions meet this claim element. Ericsson's Radio Dot System includes a digital access unit which sends a digital representation of a second set of radio resources to the first remote unit at a second point in time, the second set of radio resources for transmission at the antenna of the first remote unit. *See* **Claim 1 – [ELEMENT 1-G]**, *supra*. Further, this method is infringed by Verizon / Ericsson when Ericsson Radio Dot systems are tested and/or used by Verizon / Ericsson.
[ELEMENT 12-D] wherein a number of radio resources in the first set of radio resources is different from a number of radio resources in the second set of radio resources at least based on dynamic load balancing and resource management.	Verizon / Ericsson's wireless solutions meet this claim element. Ericsson's Radio Dot System includes a digital access unit which sends a digital representations of a first set of radio resources and a digital representation of a second set of radio resources to a first remote unit, wherein a number of radio resources in the first set of radio resources is different from a number of radio resources in the second set of radio resources at least based on dynamic load balancing and resource management. *See* **Claim 1 – [ELEMENT 1-H]**, *supra*. Further, this method is infringed by Verizon / Ericsson when Ericsson Radio Dot systems are tested and/or used by Verizon / Ericsson.

Claim 15	Verizon / Ericsson's Infringement
The method of claim 12, wherein the dynamic load balancing and resource	Verizon / Ericsson's wireless solutions meet this claim element. *See* **Claim 12**, *supra.* Ericsson's Radio Dot System includes a digital access unit which sends a digital

Claim 15	Verizon / Ericsson's Infringement
management dynamically adjusts a capacity of at least the first remote unit.	representations of a first set of radio resources and a digital representation of a second set of radio resources to a first remote unit, wherein a number of radio resources in the first set of radio resources is different from a number of radio resources in the second set of radio resources at least based on dynamic load balancing and resource management, and wherein the dynamic load balancing and resource management dynamically adjusts a capacity of at least the first remote unit. *See* **Claim 4**, *supra.* Further, this method is infringed by Verizon / Ericsson when Ericsson Radio Dot systems are tested and/or used by Verizon / Ericsson.

Claim 19	Verizon / Ericsson's Infringement
The method of claim 12, wherein the dynamic load balancing and resource management uses network capacity to route signal traffic.	Verizon / Ericsson's wireless solutions meet this claim element. *See* **Claim 12**, *supra.* Ericsson's Radio Dot System includes a digital access unit which sends a digital representations of a first set of radio resources and a digital representation of a second set of radio resources to a first remote unit, wherein a number of radio resources in the first set of radio resources is different from a number of radio resources in the second set of radio resources at least based on dynamic load balancing and resource management, and wherein the dynamic load balancing and resource management uses network capacity to route signal traffic. *See* **Claim 8**, *supra.* Further, this method is infringed by Verizon / Ericsson when Ericsson Radio Dot systems are tested and/or used by Verizon / Ericsson.

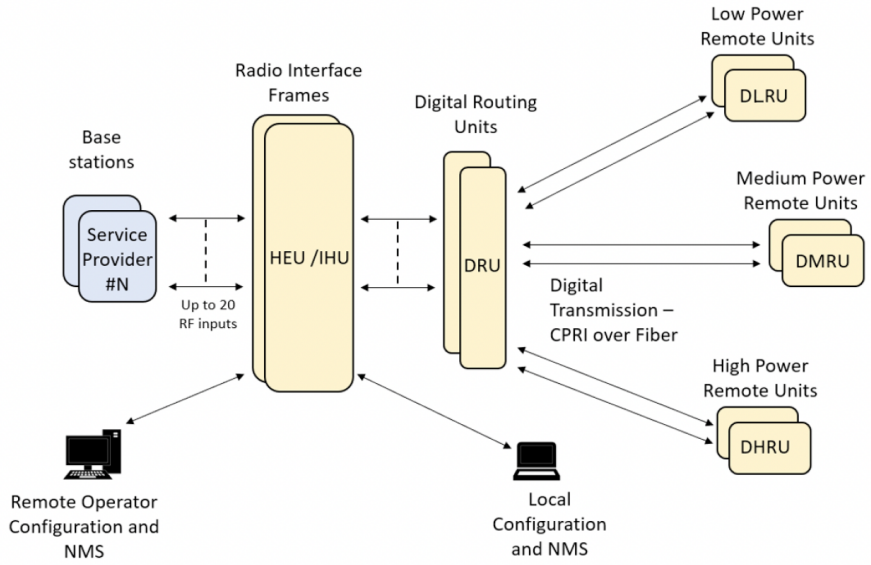
Claim 20	Verizon / Ericsson's Infringement
The method of claim 12, wherein the first remote unit is a low power radio capable of using multiple frequency bands.	Verizon / Ericsson's wireless solutions meet this claim element. *See* **Claim 12**, *supra.* Ericsson's Radio Dot System includes a first remote unit which is a low power radio capable of using multiple frequency bands. *See* **Claim 9**, *supra.* Further, this method is infringed by Verizon / Ericsson when Ericsson Radio Dot systems are tested and/or used by Verizon / Ericsson.

Claim 21	Verizon / Ericsson's Infringement
The method of claim 12, wherein the signals communicated between the digital access unit and remote units are sent via optical cables.	Verizon / Ericsson's wireless solutions meet this claim element. *See* **Claim 12**, *supra.* Ericsson's Radio Dot System can use optical cables to communicate digital signals between the digital access unit and the remote units. *See* **Claim 10**, *supra.* Further, this method is infringed by Verizon / Ericsson when Ericsson Radio Dot systems are tested and/or used by Verizon / Ericsson.

Exhibit G

Plaintiff Dali Wireless Inc. ("Dali") contends that Defendants Cellco Partnership D/B/A Verizon Wireless, Verizon Corporate Services Group Inc., Verizon Online LLC (collectively, "Verizon"), Corning Inc., and Corning Optical Communications LLC (collectively, "Corning") (altogether, "Verizon / Corning") infringe the below-identified claims of Dali's U.S. Patent No. 11,026,232 (the '232 Patent) by deploying, operating, maintaining, testing, and using Verizon's LTE and 5G networks which include equipment relating to small cell wireless solutions, such as Corning's Everon 6000 DAS Solutions (including, but not limited to, the Head End Unit (HEU), Integrated Head End Unit (IHU), Digital Routing Units (DRU) Low Power Remote Units (LRU), Medium Power Remote Units (MRU), and High Power Remote Units (HRU)), cabling and switches, and any software running thereon) (collectively, "Verizon / Corning Accused Instrumentalities"). The specific components, systems, and constructs identified in this chart are for exemplary purposes only and Dali reserves all rights to supplement as additional components, systems, and constructs become known through discovery, as well as after Verizon / Corning produces documents and source code and/or the Court construes any terms from the claims of the '232 Patent. Claims 1-3, 6, 8, 12-14, 16, 18, and 20 are infringed under 35 U.S.C. § 271(a) when Verizon / Corning uses the Verizon / Corning Accused Instrumentalities.

Claim 1 – Element	Verizon / Corning's Infringement
[PREAMBLE] A wireless system comprising:	To the extent the preamble is interpreted to be limiting, the Verizon / Corning Accused Instrumentalities satisfies this preamble. On information and belief, and based on publicly available information, the Verizon / Corning Accused Instrumentalities satisfy each and every limitation of claim 1 by providing a wireless system. For example, Corning describes the Everon 6000 as "an advanced inbuilding cellular service solution for small, medium and large size venues, supporting a broad range of cellular generations: 3G, 4G and 5G." *See, e.g.*, DALIVZN-00364.
[ELEMENT 1-A] one or more central nodes that receive a number of a plurality of radio resources from an operator hub that enables wireless communications and that	The Verizon / Corning Accused Instrumentalities satisfy this claim element. The Everon 6000 DAS Solution includes one or more central nodes that receive a number of a plurality of radio resources from an operator hub that enables wireless communications and that provides the plurality of radio resources to a radio access network using the Common Public Radio Interface (CPRI) protocol. For example, the Everon 6000 DAS Solutions include "Radio Interface frames" that "are modular chassis used for interface between the base stations and the Everon 6000." *See, e.g.*, DALIVZN-00365.

Claim 1 – Element	Verizon / Corning's Infringement
provides the plurality of radio resources to a radio access network using the Common Public Radio Interface (CPRI) protocol; and	System architecture -Everon 6000 |  **Radio Interface Frames (Point of Interface)** Radio Interface frames are modular chassis used for interface between the base stations and the Everon 6000. A system may be comprised of two types of Chassis: IHU (Integrated Head-end Unit) and HEU (Head End Unit). The IHU can interface up to 8 RF duplexed ports (or 16 UL/DL simplex ports) and can be expanded by an HEU radio interface frame which provides interface capabilities for additional 12 RF duplexed ports (or 24 UL/DL simplex ports). The following modules are used with the radio interface frames: DALIVZN-00365. Corning's Everon 6000's central nodes receive radio resources. For example, Corning's Everon 6000 DAS Solution provide "[a]dvanced network configuration and management capabilities [that] enable on-site as well as remote end-to-end configuration, system diagnostics, maintenance and support operators NOC connectivity" *See, e.g.*, DALIVZN-00364.

Claim 1 – Element	Verizon / Corning's Infringement
	"Corning Everon 6000 high bandwidth distribution architecture provides preparedness for future radio technologies, broader spectrum, and new frequency bands." *Id*.

RF Parameters

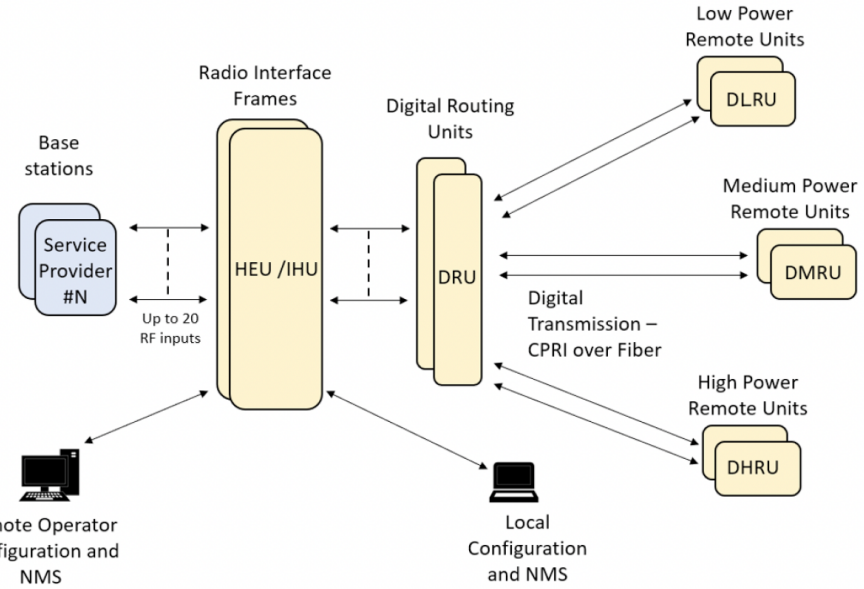
Frequency Range Name	Uplink	Downlink
600-band 71	663-698 MHz	617-652 MHz
700L (Lower Band)- band 12	698-716 MHz	728-746 MHz
700U (Upper Band)-band 13	776-787 MHz	746-757 MHz
FirstNet (700)-band 14	788-798 MHz	758-768 MHz
800/850 -band 26	817-849 MHz	862-894 MHz
1900 (PCS)-band 25	1850-1915 MHz	1930-1995 MHz
EAWS-band 66	1710-1780 MHz	2110-2200 MHz
WCS -band 30	2305-2315 MHz	2350-2360 MHz
2500 -band 41	2496-2690 MHz (TDD)	

DALIVZN-00367.

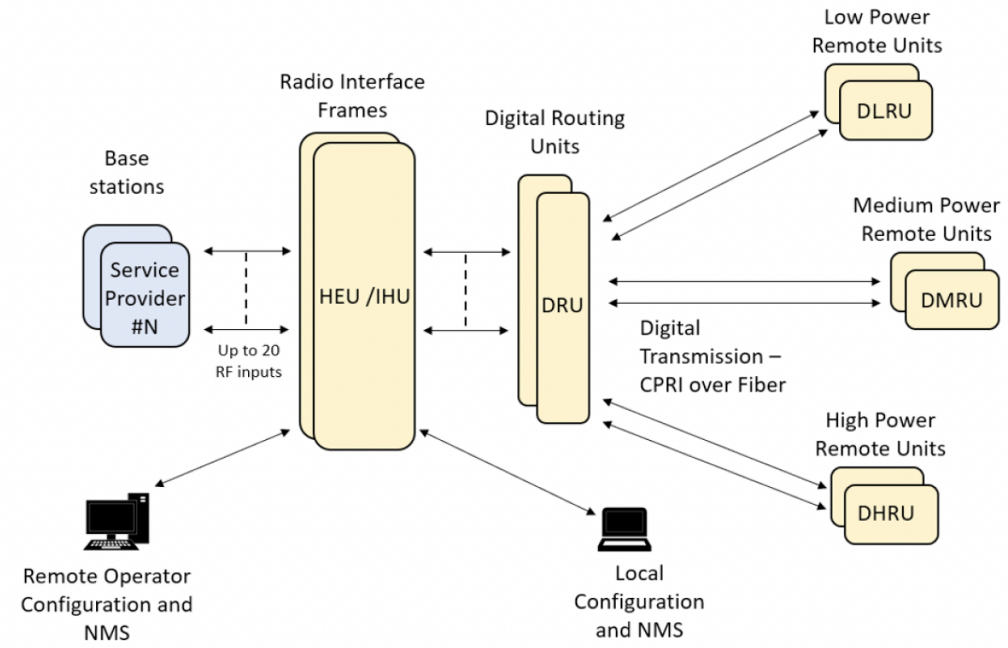
Corning's Everon 6000's central nodes send radio resources.

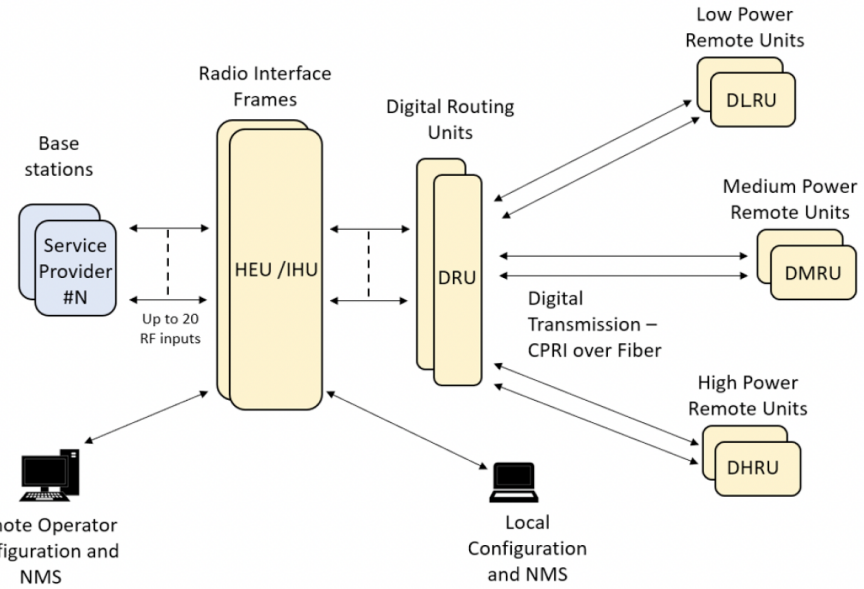
For example, Corning's Everon 6000 DAS Solution includes "Radio Interface frames," which are "modular chassis used for interface between the base stations and the Everon 6000." The "DCM (Digital Conversion Module)" is a module that is used with Radio Interface frames. The DCM "[p]rovides RF to CPRI (Downlink) and CPRI to RF (Uplink) conversion, where the well-known CPRI (Common Public Radio Interface) standard is used for representing the RF signals." *See, e.g.*, DALIVZN-00365.

Corning also states that "Corning Everon 6000 DAS is based on digital distribution architecture, advanced digital processing, and channelized implementation, enabling efficient utilization of digital links." *See, e.g.*, DALIVZN-00364.

Claim 1 – Element	Verizon / Corning's Infringement
	As a further example, Corning's Everon 6000 DAS solutions provide a "Digital Service and capacity routing" which "[e]nables advanced capacity and coverage management through flexible routing configuration management." *See, e.g.*, DALIVZN-00364. System architecture -Everon 6000 |  DALIVZN-00365. **Digital CPRI based Transport** Provides robust signal distribution. Ready for future direct interfaces interoperability with digital based capacity sources (e.g. BBUs/DUs) DALIVZN-00364.

Claim 1 – Element	Verizon / Corning's Infringement
[ELEMENT 1-B] a plurality of wireless access points that is coupled to the one or more central nodes and distributes one or more wireless signals to one or more wireless subscribers, the plurality of wireless access points including at least a first access point and a second access point,	The Verizon / Corning Accused Instrumentalities satisfy this claim element. The Everon 6000 DAS Solution includes a plurality of wireless access points that is coupled to the one or more central nodes and distributes one or more wireless signals to one or more wireless subscribers, the plurality of wireless access points including at least a first access point and a second access point. For example, Corning states that "due to its modular design and configuration flexibility, Corning Everon 6000 DAS is highly scalable in terms of supported capacity (number of sectors, frequency bands, channels) and remote units (coverage), and can be easily configured to support a large variety of deployment scenarios including single and multi-building ('Campus') network topologies." *See, e.g.*, DALIVZN-00364. Further, Corning's Everon 6000 DAS solutions "offer[] multiple types of digital remote units, supporting a variety of frequency band combinations, SISO/MIMO configurations, with different power levels ranging from 20 dBm per band to 43 dBm per band." *Id*.

Claim 1 – Element	Verizon / Corning's Infringement
	System architecture -Everon 6000 |  DALIVZN-00365.
[ELEMENT 1-C] wherein one or more central nodes assigns a first subset of the number of the plurality of radio resources to the first access point and a second subset of the number of the plurality of radio resources to the	The Verizon / Corning Accused Instrumentalities satisfy this claim element. The Everon 6000 DAS Solution includes the one or more central nodes recited in claim element 1-A, wherein one or more central nodes assigns a first subset of the number of the plurality of radio resources to the first access point and a second subset of the number of the plurality of radio resources to the second access point, the first subset including more radio resources than the second subset.

Claim 1 – Element	Verizon / Corning's Infringement
second access point, the first subset including more radio resources than the second subset, and	Corning states that "Corning Everon 6000 DAS is based on digital distribution architecture, advanced digital processing, and channelized implementation, enabling efficient utilization of digital links." *See, e.g.*, DALIVZN-00364. As a further example, Corning's Everon 6000 DAS solutions provide a "Digital Service and capacity routing" which "[e]nables advanced capacity and coverage management through flexible routing configuration management." *See, e.g.*, DALIVZN-00364. System architecture -Everon 6000 |  DALIVZN-00365.

Claim 1 – Element	Verizon / Corning's Infringement
	Key Features and Capabilities ➢ **Flexible and economic traffic management; Optimized network utilization:** A unique combination of smart traffic management techniques, allowing load (and thus cost) reduction based. These optimizations are achieved via automated management considerations and path selection techniques. e.g.: **Dynamic routing** (from each vBBU port to each remote port and vice versa); **Advanced clusterization logic** (up to 24 clusters; allows downlink forking and then uplink summing, to reduce CPRI throughput); **capacity steering techniques**, and more. DALIVZN-000402.
[ELEMENT 1-D] wherein, in response to a change in need of a number of wireless subscribers coupled to the second access point and which of the second subset is loaded beyond a threshold, the one or more central nodes assign additional radio resources of the plurality of radio resources to the second access point.	The Verizon / Corning Accused Instrumentalities satisfy this claim element. The Everon 6000 DAS Solution includes the one or more central nodes recited in claim element 1-A, wherein, in response to a change in need of a number of wireless subscribers coupled to the second access point and which of the second subset is loaded beyond a threshold, the one or more central nodes assign additional radio resources of the plurality of radio resources to the second access point. Corning states that "Corning Everon 6000 DAS is based on digital distribution architecture, advanced digital processing, and channelized implementation, enabling efficient utilization of digital links." *See, e.g.*, DALIVZN-00364. As a further example, Corning's Everon 6000 DAS solutions provide a "Digital Service and capacity routing" which "[e]nables advanced capacity and coverage management through flexible routing configuration management." *See, e.g.*, DALIVZN-00364.

Claim 1 – Element	Verizon / Corning's Infringement
	Key Features and Capabilities ➢ **Flexible and economic traffic management; Optimized network utilization:** A unique combination of smart traffic management techniques, allowing load (and thus cost) reduction based. These optimizations are achieved via automated management considerations and path selection techniques. e.g.: **Dynamic routing** (from each vBBU port to each remote port and vice versa); **Advanced clusterization logic** (up to 24 clusters; allows downlink forking and then uplink summing, to reduce CPRI throughput); **capacity steering techniques**, and more. DALIVZN-000402.

Claim 2	Verizon / Corning's Infringement
The wireless system of claim 1, wherein the change in need is determined based on a change in capacity needed by the number of wireless subscribers coupled to the second access point or a change in throughput needed by the number of wireless subscribers coupled to the second access point.	The Verizon / Corning Accused Instrumentalities satisfy this claim element. The Everon 6000 DAS Solution meets the wireless system of claim 1, wherein the change in need is determined based on a change in capacity needed by the number of wireless subscribers coupled to the second access point or a change in throughput needed by the number of wireless subscribers coupled to the second access point. *See* **Claim Element 1-C** and **1-D**.

Claim 3	Verizon / Corning's Infringement
The wireless system of claim 1, wherein the additional resources are	The Verizon / Corning Accused Instrumentalities satisfy this claim element. The Everon 6000 DAS Solution meets the wireless system of claim 1, wherein the additional resources are included in the first subset prior to being assigned to the second access point, and wherein the one or more central nodes

Claim 3	Verizon / Corning's Infringement
included in the first subset prior to being assigned to the second access point, and wherein the one or more central nodes assign the additional radio resources of the plurality of radio resources to the second access point comprises removing the additional resources from the first subset assigned to the first access point.	assign the additional radio resources of the plurality of radio resources to the second access point comprises removing the additional resources from the first subset assigned to the first access point. *See* **Claim Element 1-C** and **1-D**.

Claim 6	Verizon / Corning's Infringement
The wireless system of claim 1, wherein the first access point belongs to a first sector and the second access point belongs to a second sector.	The Verizon / Corning Accused Instrumentalities satisfy this claim element. The Everon 6000 DAS Solution meets the wireless system of claim 1, wherein the first access point belongs to a first sector and the second access point belongs to a second sector. *See* **Claim Element 1-C**; *see also, e.g.*, DALIVZN-000364 ("[c]an be easily expanded to support additional capacity: sectors, frequency bands, channels, and coverages areas").

Claim 7	Verizon / Corning's Infringement
The wireless system of claim 1, wherein the first access point belongs to a first building and the second access point belongs to a second building.	The Verizon / Corning Accused Instrumentalities satisfy this claim element. The Everon 6000 DAS Solution meets the wireless system of claim 1, wherein the first access point belongs to a first building and the second access point belongs to a second building. *See* **Claim Element 1-C**; *see also, e.g.*, DALIVZN-000364 ("[c]an be easily expanded to support additional capacity: sectors, frequency bands, channels, and coverages areas").

Claim 8	Verizon / Corning's Infringement
The wireless system of claim 1, wherein at least one of the plurality of wireless access points enables communication between an IP device and the one or more central nodes.	The Verizon / Corning Accused Instrumentalities satisfy this claim element. The Everon 6000 DAS Solution meets the wireless system of claim 1, wherein at least one of the plurality of wireless access points enables communication between an IP device and the one or more central nodes. *See* **Claim Element 1-B**.

Claim 12 – Element	Verizon / Corning's Infringement
[PREAMBLE] A method comprising:	To the extent the preamble is interpreted to be limiting, the Verizon / Corning Accused Instrumentalities satisfies this preamble. On information and belief, and based on publicly available information, the Verizon / Corning Accused Instrumentalities satisfy each and every limitation of claim 12 by performing the method of claim 12 as detailed here.

Claim 12 – Element	Verizon / Corning's Infringement
	See **Claim 1**. Further, this method is infringed by Verizon / Corning when the Verizon / Corning Accused Instrumentalities are tested and/or used by Verizon / Corning.
[ELEMENT 12-A] receiving a plurality of radio resources from an operator hub that operates using a Common Public Radio Interface (CPRI) protocol;	The Verizon / Corning Accused Instrumentalities satisfy this claim element. The Everon 6000 DAS Solution receives a plurality of radio resources from an operator hub that operates using a Common Public Radio Interface (CPRI) protocol. *See* **Claim Element 1-A**.
[ELEMENT 12-B] assigning a first subset of the plurality of radio resources to a first access point included in a plurality of wireless access points and a second subset of the plurality of radio resources to a second access point included in the plurality of wireless access points, the first subset including more radio resources than the second subset; and	The Verizon / Corning Accused Instrumentalities satisfy this claim element. The Everon 6000 DAS Solution assigns a first subset of the plurality of radio resources to a first access point included in a plurality of wireless access points and a second subset of the plurality of radio resources to a second access point included in the plurality of wireless access points, the first subset including more radio resources than the second subset. *See* **Claim Element 1-C**.

Claim 12 – Element	Verizon / Corning's Infringement
[ELEMENT 12-C] in response to a change in need of a number of wireless subscribers coupled to the second access point and which of the second subset is loaded beyond a threshold, assigning one or more additional radio resources of the plurality of radio resources to the second access point.	The Verizon / Corning Accused Instrumentalities satisfy this claim element. The Everon 6000 DAS Solution in response to a change in need of a number of wireless subscribers coupled to the second access point and which of the second subset is loaded beyond a threshold, assigns one or more additional radio resources of the plurality of radio resources to the second access point. *See* **Claim Element 1-D**.

Claim 13 – Element	Verizon / Corning's Infringement
The method of claim 12, wherein the change in need is determined based on a change in capacity needed by the number of wireless subscribers coupled to the second access point or a change in throughput needed by the number of wireless subscribers coupled to the second access point.	The Verizon / Corning Accused Instrumentalities satisfy this claim element. The Everon 6000 DAS Solution performs the method of claim 12, wherein the change in need is determined based on a change in capacity needed by the number of wireless subscribers coupled to the second access point or a change in throughput needed by the number of wireless subscribers coupled to the second access point. *See* **Claim Element 1-D**. Further, this method is infringed by Verizon / Corning when the Verizon / Corning Accused Instrumentalities are tested and/or used by Verizon / Corning.

Claim 14	Verizon / Corning's Infringement
The method of claim 12, wherein the one or more additional resources are included in the first subset prior to being assigned to the second access point, and wherein assigning the one or more additional radio resources comprises removing the one or more additional resources from the first subset assigned to the first access point.	The Verizon / Corning Accused Instrumentalities satisfy this claim element. The Everon 6000 DAS Solution performs the method of claim 12, wherein the one or more additional resources are included in the first subset prior to being assigned to the second access point, and wherein assigning the one or more additional radio resources comprises removing the one or more additional resources from the first subset assigned to the first access point. *See* **Claim Element 1-C**. Further, this method is infringed by Verizon / Corning when the Verizon / Corning Accused Instrumentalities are tested and/or used by Verizon / Corning.

Claim 16	Verizon / Corning's Infringement
The method of claim 12, where the first access point belongs to a first sector and the second access point belongs to a second sector.	The Verizon / Corning Accused Instrumentalities satisfy this claim element. The Everon 6000 DAS Solution performs the method of claim 12, where the first access point belongs to a first sector and the second access point belongs to a second sector. *See* **Claim 6**. Further, this method is infringed by Verizon / Corning when the Verizon / Corning Accused Instrumentalities are tested and/or used by Verizon / Corning.

Claim 17 – Element	Verizon / Corning's Infringement
The method of claim 12, where the first access point belongs to a first building and the second access point belongs to a second building.	The Verizon / Corning Accused Instrumentalities satisfy this claim element. The Everon 6000 DAS Solution performs the method of claim 12, where the first access point belongs to a first sector and the second access point belongs to a second sector. *See* **Claim 7**. Further, this method is infringed by Verizon / Corning when the Verizon / Corning Accused Instrumentalities are tested and/or used by Verizon / Corning.

Claim 18	Verizon / Corning's Infringement
The method of claim 12, wherein at least one of the plurality of wireless access points enables communication between an IP device and one or more central nodes.	The Verizon / Corning Accused Instrumentalities satisfy this claim element. The Everon 6000 DAS Solution performs the method of claim 12, wherein at least one of the plurality of wireless access points enables communication between an IP device and one or more central nodes. *See* **Claim Element 1-B**. Further, this method is infringed by Verizon / Corning when the Verizon / Corning Accused Instrumentalities are tested and/or used by Verizon / Corning.

Claim 20 – Element	Verizon / Corning's Infringement
[PREAMBLE] One or more non-transitory computer readable storage media storing instructions that, when executed by one or more processors, cause	To the extent the preamble is interpreted to be limiting, the Verizon / Corning Accused Instrumentalities satisfies this preamble. On information and belief, and based on publicly available information, the Verizon / Corning Accused Instrumentalities satisfy each and every limitation of claim 20 by including one or more non-transitory

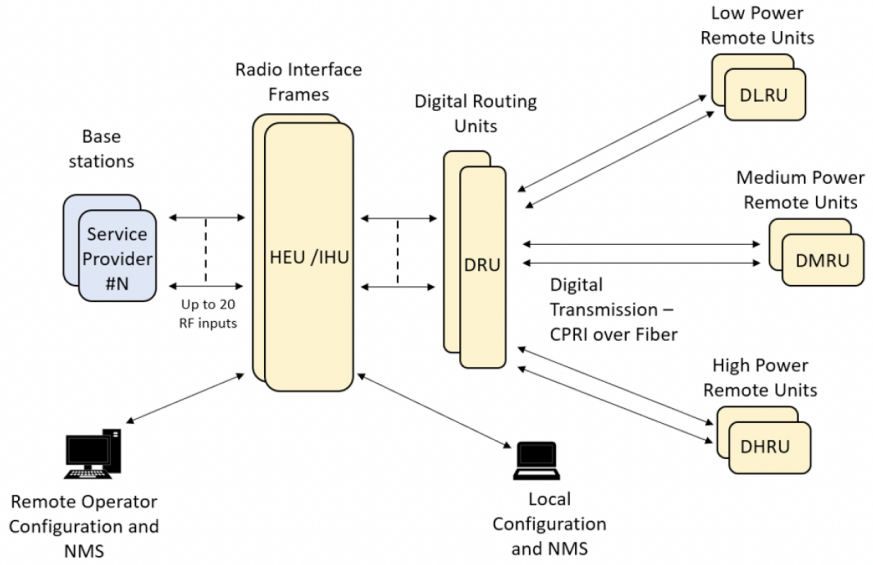
Claim 20 – Element	Verizon / Corning's Infringement
the one or more processors to perform the steps of:	computer readable storage media storing instructions that, when executed by one or more processors, cause the one or more processors to perform the steps of claim 20. *See* **Claim 1**.
[ELEMENT 20-A] receiving a plurality of radio resources from an operator hub that operates using a Common Public Radio Interface (CPRI) protocol;	The Verizon / Corning Accused Instrumentalities satisfy this claim element. The Everon 6000 DAS Solution receives a plurality of radio resources from an operator hub that operates using a Common Public Radio Interface (CPRI) protocol. *See* **Claim Element 1-A**
[ELEMENT 20-B] assigning a first subset of the plurality of radio resources to a first access point included in a plurality of wireless access points and a second subset of the plurality of radio resources to a second access point included in the plurality of wireless access points, the first subset including more radio resources than the second subset; and	The Verizon / Corning Accused Instrumentalities satisfy this claim element. The Everon 6000 DAS Solution assigns a first subset of the plurality of radio resources to a first access point included in a plurality of wireless access points and a second subset of the plurality of radio resources to a second access point included in the plurality of wireless access points, the first subset including more radio resources than the second subset. *See* **Claim Element 1-C**.

Claim 20 – Element	Verizon / Corning's Infringement
[ELEMENT 20-C] in response to a change in need by a number of wireless subscribers coupled to the second access point and which of the second subset is loaded beyond a threshold, assigning one or more additional radio resources of the plurality of radio resources to the second access point.	The Verizon / Corning Accused Instrumentalities satisfy this claim element. The Everon 6000 DAS Solution in response to a change in need by a number of wireless subscribers coupled to the second access point and which of the second subset is loaded beyond a threshold, assigns one or more additional radio resources of the plurality of radio resources to the second access point. *See* **Claim Element 1-D**.

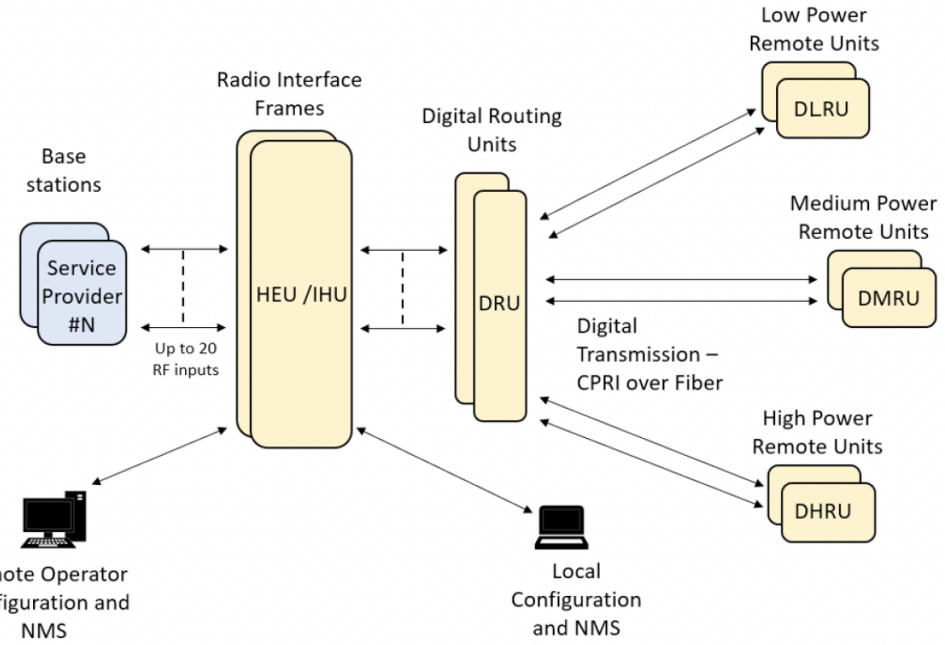
Exhibit H

Plaintiff Dali Wireless Inc. ("Dali") contends that Defendants Cellco Partnership D/B/A Verizon Wireless, Verizon Corporate Services Group Inc., Verizon Online LLC (collectively, "Verizon"), Corning Inc., and Corning Optical Communications LLC (collectively, "Corning") (altogether, "Verizon / Corning") infringe the below-identified claims of Dali's U.S. Patent No. 10,334,499 (the '499 Patent) by deploying, operating, maintaining, testing, and using Verizon's LTE and 5G networks which include equipment relating to cellular service solutions, such as Corning's Everon 6000 DAS Solutions (including, but not limited to, the Head End Unit (HEU), Integrated Head End Unit (IHU), Digital Routing Units (DRU) Low Power Remote Units (LRU), Medium Power Remote Units (MRU), and High Power Remote Units (HRU)), cabling and switches, and any software running thereon) (collectively, "Verizon / Corning Accused Instrumentalities"). The specific components, systems, and constructs identified in this chart are for exemplary purposes only and Dali reserves all rights to supplement as additional components, systems, and constructs become known through discovery, as well as after Verizon / Corning produces documents and source code and/or the Court construes any terms from the claims of the '499 Patent. Claims 1-4, 8-11, 13, 14-16, and 18-19 are infringed under 35 U.S.C. § 271(a) when Verizon / Corning uses the Verizon / Corning Accused Instrumentalities.

Claim 1 – Element	Verizon / Corning's Infringement
[PREAMBLE] A system for transporting wireless communications, comprising:	To the extent the preamble is interpreted to be limiting, the Verizon / Corning Accused Instrumentalities satisfies this preamble. On information and belief, and based on publicly available information, the Verizon / Corning Accused Instrumentalities satisfy each and every limitation of claim 1 by providing system for transporting wireless communications. For example, Corning describes the Everon 6000 as "an advanced inbuilding cellular service solution for small, medium and large size venues, supporting a broad range of cellular generations: 3G, 4G and 5G." *See, e.g.*, DALIVZN-00364.
[ELEMENT 1-A] a baseband unit;	The Verizon / Corning Accused Instrumentalities satisfy this claim element. The Everon 6000 DAS Solution includes a baseband unit.

Claim 1 – Element	Verizon / Corning's Infringement
	For example, the Everon 6000 DAS Solutions include "Radio Interface frames" that "are modular chassis used for interface between the base stations and the Everon 6000." *See, e.g.*, DALIVZN-00365. System architecture -Everon 6000 |  **Radio Interface Frames (Point of Interface)** Radio Interface frames are modular chassis used for interface between the base stations and the Everon 6000. A system may be comprised of two types of Chassis: IHU (Integrated Head-end Unit) and HEU (Head End Unit). The IHU can interface up to 8 RF duplexed ports (or 16 UL/DL simplex ports) and can be expanded by an HEU radio interface frame which provides interface capabilities for additional 12 RF duplexed ports (or 24 UL/DL simplex ports). The following modules are used with the radio interface frames: DALIVZN-00365.

Claim 1 – Element	Verizon / Corning's Infringement
	DRU – Digital Routing Unit The DRU - Digital Routing Unit is the Everon 6000 central Hub and Distribution element. The DRU interfaces between the DCM modules and the IHU Radio Interface Frames, allowing to receive the operators service signals in CPRI format, and to route these signals to the remote antenna units. The DRU supports all Corning digital remote antenna units' flavours, for all services, power levels and antenna configurations (SISO or MIMO). Each DRU includes 4 SFP+ ports connected to the DCMs and 32 SFP+ ports for connection to the remote units. When more remote antenna units are needed, the system scales up easily by adding additional system modules. DALIVZN-00366.
[ELEMENT 1-B] a plurality of signal sources, including at least a first signal source and a second signal source;	The Verizon / Corning Accused Instrumentalities satisfy this claim element. The Everon 6000 DAS Solution includes a plurality of signal sources, including at least a first signal source and a second signal source. For example, the Everon 6000 DAS Solutions include "[s]upport[] multi-operator, multi-band, multi-technology services over a single infrastructure. Supports single and multi-building ('campus') network architectures." *See, e.g.*, DALIVZN-00364. Further, Corning states that "[t]he DRU interfaces between the DCM modules and the IHU Radio Interface Frames, allowing to receive the operators service signals in CPRI format, and to route these signals to the remote antenna units." *See, e.g.*, DALIVZN-00366.
[ELEMENT 1-C] a plurality of remote units, including at least a first remote unit and a second remote unit;	The Verizon / Corning Accused Instrumentalities satisfy this claim element. The Everon 6000 DAS Solution includes a plurality of remote units, including at least a first remote unit and a second remote unit. For example, Corning states that "due to its modular design and configuration flexibility, Corning Everon 6000 DAS is highly scalable in terms of supported capacity (number of sectors, frequency bands, channels) and remote units (coverage), and can be easily configured to support a large variety of deployment scenarios including single and multi-building ('Campus') network topologies." *See, e.g.*, DALIVZN-00364. Further, Corning's Everon 6000 DAS solutions "offer[] multiple types of digital remote units, supporting a variety of frequency band combinations, SISO/MIMO configurations, with different power levels ranging from 20 dBm per band to 43 dBm per band." *Id*.

Claim 1 – Element	Verizon / Corning's Infringement
	System architecture -Everon 6000 |  DALIVZN-00365.
[ELEMENT 1-D] wherein the baseband unit comprises a plurality of interfaces to communicatively couple the baseband unit to the plurality of signal sources;	The Verizon / Corning Accused Instrumentalities satisfy this claim element. Corning's Everon 6000 DAS includes a baseband unit that comprises a plurality of interfaces to communicatively couple the baseband unit to the plurality of signal sources. For example, Corning's Everon 6000 DAS solutions provide a "Multi-X system" which "[s]upports multi-operator, multi-band, multi-technology services over a single infrastructure." *See, e.g.*, DALIVZN-00364.

Claim 1 – Element	Verizon / Corning's Infringement
	DRU – Digital Routing Unit The DRU - Digital Routing Unit is the Everon 6000 central Hub and Distribution element. The DRU interfaces between the DCM modules and the IHU Radio Interface Frames, allowing to receive the operators service signals in CPRI format, and to route these signals to the remote antenna units. The DRU supports all Corning digital remote antenna units' flavours, for all services, power levels and antenna configurations (SISO or MIMO). Each DRU includes 4 SFP+ ports connected to the DCMs and 32 SFP+ ports for connection to the remote units. When more remote antenna units are needed, the system scales up easily by adding additional system modules. DALIVZN-00366.
[ELEMENT 1-E] wherein the baseband unit is configured to receive a plurality of radio resources from the first signal source and the second signal source;	The Verizon / Corning Accused Instrumentalities satisfy this claim element. The Everon 6000 DAS Solution includes a baseband unit that is configured to receive a plurality of radio resources from the first signal source and the second signal source. For example, Corning's Everon 6000 DAS Solution includes a baseband unit as described in Claim Element 1-A above. Corning's baseband unit is also configured to receive a plurality of radio resources from the signal sources described in Claim Elements 1-B and 1-D above. Further, Corning's Everon 6000 DAS Solution provide "[a]dvanced network configuration and management capabilities [that] enable on-site as well as remote end-to-end configuration, system diagnostics, maintenance and support operators NOC connectivity" *See, e.g.*, DALIVZN-00364. "Corning Everon 6000 high bandwidth distribution architecture provides preparedness for future radio technologies, broader spectrum, and new frequency bands." *Id*.

<table>
<tr><th>Claim 1 – Element</th><th>Verizon / Corning's Infringement</th></tr>
<tr><td></td><td>RF Parameters
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<tr><th>Frequency Range Name</th><th>Uplink</th><th>Downlink</th></tr>
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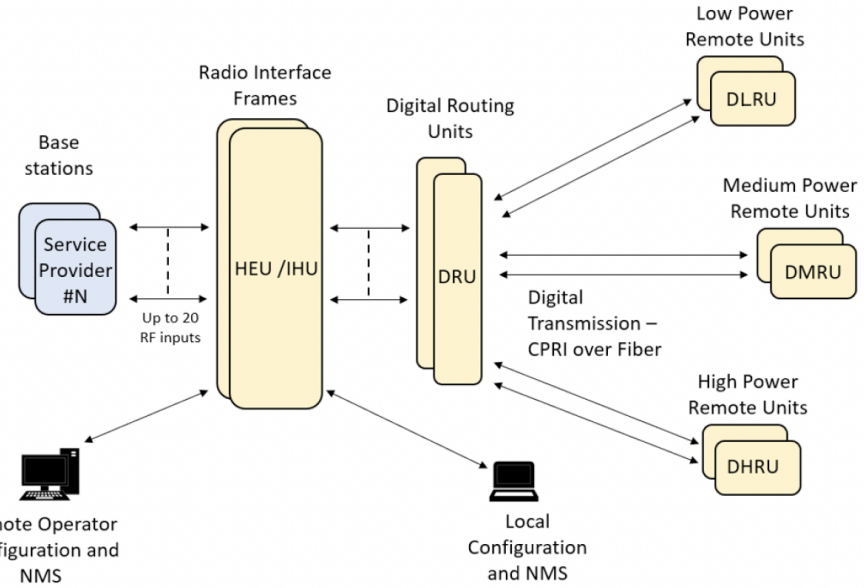
<tr><td>2500 -band 41</td><td colspan="2">2496-2690 MHz (TDD)</td></tr>
</table>DALIVZN-00367.</td></tr>
<tr><td>[ELEMENT 1-F] wherein the baseband unit is configured to send a digital representation of a first set of radio resources to the first remote unit at a first point in time, the first set of radio resources for transmission at an antenna of the first remote unit;</td><td>The Verizon / Corning Accused Instrumentalities satisfy this claim element. The Everon 6000 DAS Solution includes a baseband unit that is configured to send a digital representation of a first set of radio resources to the first remote unit at a first point in time, the first set of radio resources for transmission at an antenna of the first remote unit.

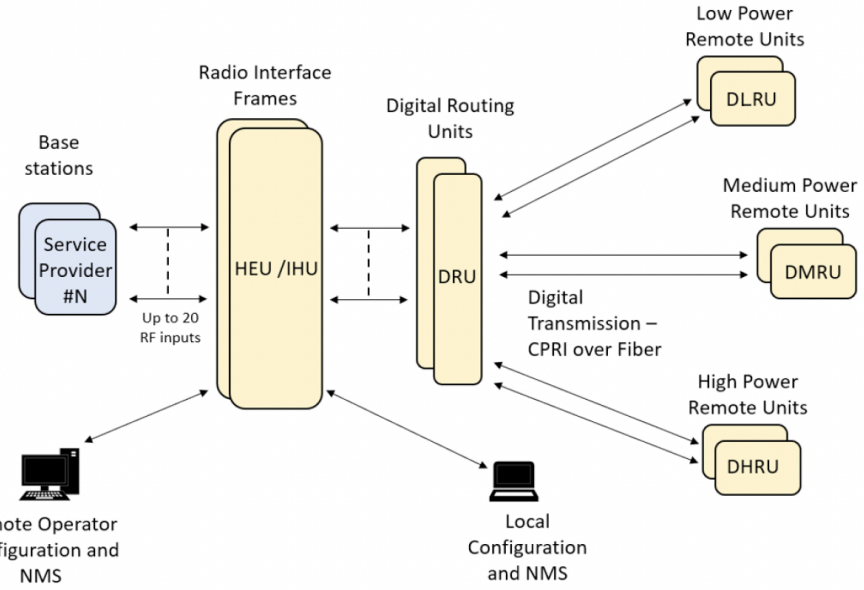
For example, Corning's Everon 6000 DAS Solution includes a baseband unit as described in Claim Element 1-A above. Corning's baseband unit is also configured to receive a plurality of radio resources from the signal sources described in Claim Elements 1-B and 1-D above.

Further, Corning's Everon 6000 DAS Solution includes "Radio Interface frames," which are "modular chassis used for interface between the base stations and the Everon 6000." The "DCM (Digital Conversion Module)" is a module that is used with Radio Interface frames. The DCM "[p]rovides RF to CPRI (Downlink) and CPRI to RF (Uplink) conversion, where the well-known CPRI (Common Public Radio Interface) standard is used for representing the RF signals." See, e.g., DALIVZN-00365.

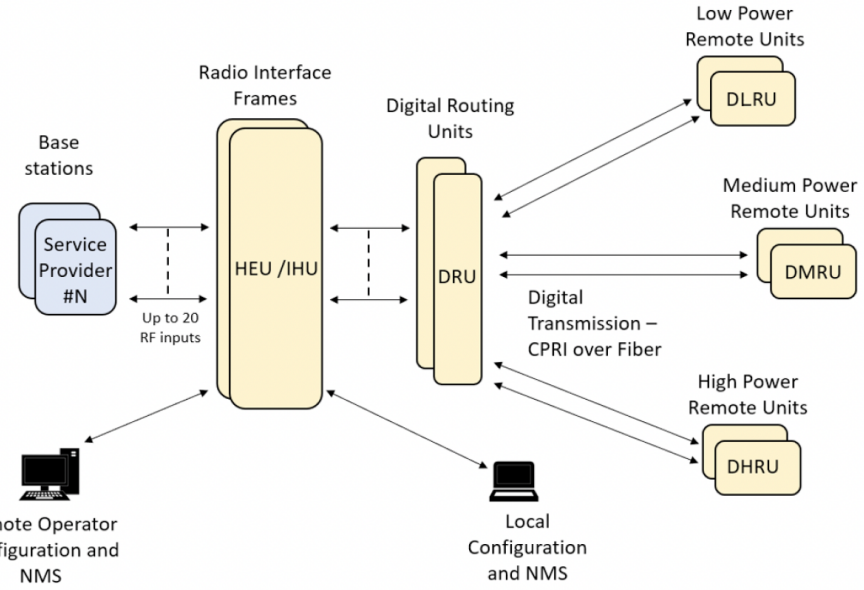
Corning also states that "Corning Everon 6000 DAS is based on digital distribution architecture, advanced digital processing, and channelized implementation, enabling efficient utilization of digital links." See, e.g., DALIVZN-00364.</td></tr>
</table>

Claim 1 – Element	Verizon / Corning's Infringement
	As a further example, Corning's Everon 6000 DAS solutions provide a "Digital Service and capacity routing" which "[e]nables advanced capacity and coverage management through flexible routing configuration management." *See, e.g.*, DALIVZN-00364. System architecture -Everon 6000 |  DALIVZN-00365.

Claim 1 – Element	Verizon / Corning's Infringement
	Key Features and Capabilities ➢ **Flexible and economic traffic management; Optimized network utilization:** A unique combination of smart traffic management techniques, allowing load (and thus cost) reduction based. These optimizations are achieved via automated management considerations and path selection techniques. e.g.: **Dynamic routing** (from each vBBU port to each remote port and vice versa); **Advanced clusterization logic** (up to 24 clusters; allows downlink forking and then uplink summing, to reduce CPRI throughput); **capacity steering techniques**, and more. DALIVZN-000402.
[ELEMENT 1-G] wherein the baseband unit is configured to send a digital representation of a second set of radio resources to the first remote unit at a second point in time, the second set of radio resources for transmission at the antenna of the first remote unit;	The Verizon / Corning Accused Instrumentalities satisfy this claim element. The Everon 6000 DAS Solution includes a baseband unit that is configured to send a digital representation of a second set of radio resources to the first remote unit at a second point in time, the second set of radio resources for transmission at the antenna of the first remote unit. For example, Corning states that "Corning Everon 6000 DAS is based on digital distribution architecture, advanced digital processing, and channelized implementation, enabling efficient utilization of digital links." *See, e.g.*, DALIVZN-00364. As a further example, Corning's Everon 6000 DAS solutions provide a "Digital Service and capacity routing" which "[e]nables advanced capacity and coverage management through flexible routing configuration management." *See, e.g.*, DALIVZN-00364.

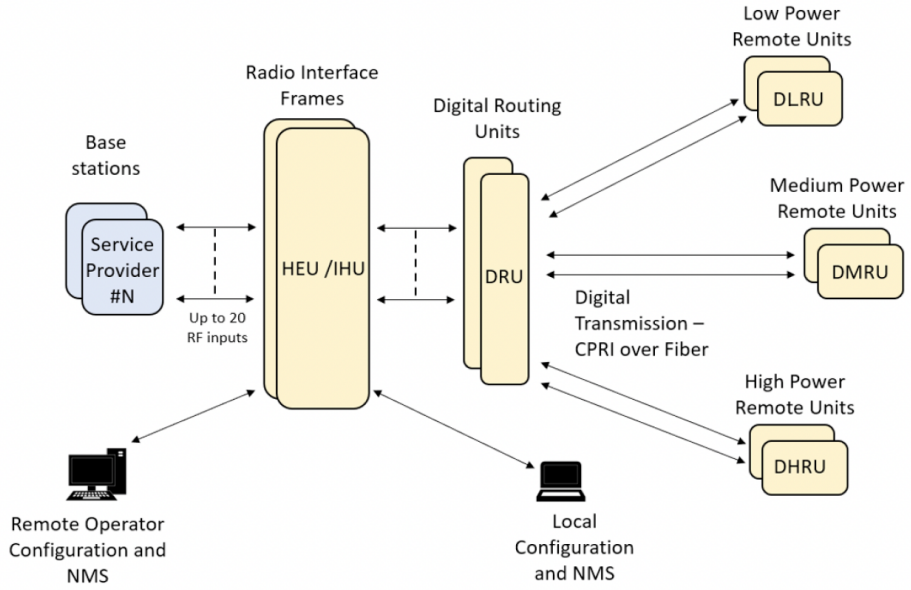
Claim 1 – Element	Verizon / Corning's Infringement
	System architecture -Everon 6000 |  DALIVZN-00365. **Key Features and Capabilities** ➢ **Flexible and economic traffic management; Optimized network utilization:** A unique combination of smart traffic management techniques, allowing load (and thus cost) reduction based. These optimizations are achieved via automated management considerations and path selection techniques. e.g.: **Dynamic routing** (from each vBBU port to each remote port and vice versa); **Advanced clusterization logic** (up to 24 clusters; allows downlink forking and then uplink summing, to reduce CPRI throughput); **capacity steering techniques**, and more. DALIVZN-000402.

Claim 1 – Element	Verizon / Corning's Infringement
[ELEMENT 1-H] wherein a number of radio resources in the first set of radio resources is different from a number of radio resources in the second set of radio resources; and	The Verizon / Corning Accused Instrumentalities satisfy this claim element. The Everon 6000 DAS Solution includes a baseband unit that is configured to send digital representations of a first and second set of radio resources as recited in claim element 1-G, wherein a number of radio resources in the first set of radio resources is different from a number of radio resources in the second set of radio resources. Corning's Everon 6000 DAS Solutions provide a "Digital Service and capacity routing" which "[e]nables advanced capacity and coverage management through flexible routing configuration management." *See, e.g.*, DALIVZN-00364. **Key Features and Capabilities** ➢ **Flexible and economic traffic management; Optimized network utilization:** A unique combination of smart traffic management techniques, allowing load (and thus cost) reduction based. These optimizations are achieved via automated management considerations and path selection techniques. e.g.: **Dynamic routing** (from each vBBU port to each remote port and vice versa); **Advanced clusterization logic** (up to 24 clusters; allows downlink forking and then uplink summing, to reduce CPRI throughput); **capacity steering techniques**, and more. DALIVZN-000402.
[ELEMENT 1-I] wherein the baseband unit is configured to receive digital signals from each of the plurality of remote units.	The Verizon / Corning Accused Instrumentalities satisfy this claim element. The Everon 6000 DAS Solution includes a baseband unit that is configured to receive digital signals from each of the plurality of remote units. For example, Corning states that "The DRU - Digital Routing Unit is the Everon 6000 central Hub and Distribution element. The DRU interfaces between the DCM modules and the IHU Radio Interface Frames, allowing to receive the operators service signals in CPRI format, and to route these signals to the remote antenna units." *See, e.g.*, DALIVZN-00365. Similarly, the DRU also receives digital signals from the remote antenna units.

Claim 1 – Element	Verizon / Corning's Infringement
	System architecture -Everon 6000 |  DALIVZN-00365. **Key Features and Capabilities** ➢ **Flexible and economic traffic management; Optimized network utilization:** A unique combination of smart traffic management techniques, allowing load (and thus cost) reduction based. These optimizations are achieved via automated management considerations and path selection techniques. e.g.: **Dynamic routing** (from each vBBU port to each remote port and vice versa); **Advanced clusterization logic** (up to 24 clusters; allows downlink forking and then uplink summing, to reduce CPRI throughput); **capacity steering techniques**, and more. DALIVZN-000402.

Claim 2 - Element	Verizon / Corning's Infringement
The system of claim 1 wherein the baseband unit is configured to packetize each digital representation of a radio resource.	The Verizon / Corning Accused Instrumentalities satisfy this claim element. Corning's Everon 6000 DAS Solution's baseband unit is configured to packetize each digital representation of a radio resource. For example, Corning states that "The DRU - Digital Routing Unit is the Everon 6000 central Hub and Distribution element. The DRU interfaces between the DCM modules and the IHU Radio Interface Frames, allowing to receive the operators service signals in CPRI format, and to route these signals to the remote antenna units." *See, e.g.*, DALIVZN-00365. Further, Corning's Everon 6000 DAS Solution includes "Radio Interface frames," which are "modular chassis used for interface between the base stations and the Everon 6000." The "DCM (Digital Conversion Module)" is a module that is used with Radio Interface frames. The DCM "[p]rovides RF to CPRI (Downlink) and CPRI to RF (Uplink) conversion, where the well-known CPRI (Common Public Radio Interface) standard is used for representing the RF signals." *See, e.g.*, DALIVZN-00365.

Claim 3 - Element	Verizon / Corning's Infringement
The system of claim 1 wherein the digital representation of the first set of radio resources includes destination information identifying the first remote unit and the digital representation of the second set of radio resources includes destination information identifying the first remote unit.	The Verizon / Corning Accused Instrumentalities satisfy this claim element. Corning's Everon 6000 DAS Solution meets the system of claim 1 wherein the digital representation of the first set of radio resources includes destination information identifying the first remote unit and the digital representation of the second set of radio resources includes destination information identifying the first remote unit. Corning's Everon 6000 DAS Solution's DRUs send digital transmissions via CPRI as illustrated below. CPRI involves the use of packetized data including Control & Management Channel maps and encodes ethernet packets for transmission with destination information identifying the remote units. Further, both ethernet and IP protocols have destination information. For example, ethernet has Destination Mac Address (*see e.g.,* Ethernet 802.3 frame protocol standard) while IPv4 and IPv6 have destination IP address (*see e.g.,* Internet Protocol version 4 and Internet Protocol version 6 protocol standards).

Claim 3 - Element	Verizon / Corning's Infringement
	System architecture -Everon 6000 |  DALIVZN-00365.

Claim 4 - Element	Verizon / Corning's Infringement
The system of claim 1 wherein the first set of radio resources is a subset of the plurality of radio resources and includes at least some radio resources from the first signal source and at least some	The Verizon / Corning Accused Instrumentalities satisfy this claim element. Corning's Everon 6000 DAS Solution meets the system of claim 1 wherein the first set of radio resources is a subset of the plurality of radio resources and includes at least some radio resources from the first signal source and at least some radio resources from the second signal source. *See* **Claim Elements 1-E**, **1-F**, and **1-G**.

Claim 4 - Element	Verizon / Corning's Infringement
radio resources from the second signal source.	

Claim 8 - Element	Verizon / Corning's Infringement
[PREAMBLE] A baseband controller for use in the transport of wireless communications, comprising:	To the extent the preamble is interpreted to be limiting, the Verizon / Corning Accused Instrumentalities satisfies this preamble. On information and belief, and based on publicly available information, the Verizon / Corning Accused Instrumentalities satisfy each and every limitation of claim 8 by providing a baseband controller for use in the transport of wireless communications. *See* **Claim 1**.
[ELEMENT 8-A] a plurality of interfaces to communicatively couple a baseband unit to a plurality of signal sources, including at least a first signal source and a second signal source;	The Verizon / Corning Accused Instrumentalities satisfy this claim element. Corning's Everon 6000 DAS Solution includes a plurality of interfaces to communicatively couple a baseband unit to a plurality of signal sources, including at least a first signal source and a second signal source. *See* **Claim Element 1-D**.
[ELEMENT 8-B] at least one interface to communicatively couple the baseband unit to a plurality of remote units, including at least a first remote unit;	The Verizon / Corning Accused Instrumentalities satisfy this claim element. Corning's Everon 6000 DAS Solution includes at least one interface to communicatively couple the baseband unit to a plurality of remote units, including at least a first remote unit. *See* **Claim Elements 1-C**, **1-F**, **1-G**, and **1-I**.

Claim 8 - Element	Verizon / Corning's Infringement
[ELEMENT 8-C] wherein the baseband unit is configured to receive a plurality of radio resources from the first signal source and the second signal source;	The Verizon / Corning Accused Instrumentalities satisfy this claim element. Corning's Everon 6000 DAS Solution includes a baseband unit configured to receive a plurality of radio resources from the first signal source and the second signal source. *See* **Claim Element 1-E**.
[ELEMENT 8-D] wherein the baseband unit is configured to send digital representations of a first set of radio resources to the first remote unit at a first point in time, the first set of radio resources for transmission at an antenna of the first remote unit;	The Verizon / Corning Accused Instrumentalities satisfy this claim element. Corning's Everon 6000 DAS Solution includes a baseband unit configured to send digital representations of a first set of radio resources to the first remote unit at a first point in time, the first set of radio resources for transmission at an antenna of the first remote unit. *See* **Claim Element 1-F**.
[ELEMENT 8-E] wherein the baseband unit is configured to send digital representations of a second set of radio resources to the first remote unit at a second point in time, the second set of radio resources for transmission at the antenna of the first remote unit; and	The Verizon / Corning Accused Instrumentalities satisfy this claim element. Corning's Everon 6000 DAS Solution includes a baseband unit configured to send digital representations of a second set of radio resources to the first remote unit at a second point in time, the second set of radio resources for transmission at the antenna of the first remote unit. *See* **Claim Element 1-G**.
[ELEMENT 8-F]	The Verizon / Corning Accused Instrumentalities satisfy this claim element. Corning's Everon 6000 DAS Solution includes a baseband unit that is configured to send digital representations of a first and

Claim 8 - Element	Verizon / Corning's Infringement
wherein a number of radio resources in the first set of radio resources is different from a number of radio resources in the second set of radio resources.	second set of radio resources, wherein a number of radio resources in the first set of radio resources is different from a number of radio resources in the second set of radio resources. *See* **Claim Element 1-H**.

Claim 9 - Element	Verizon / Corning's Infringement
The baseband controller of claim 8 wherein the baseband unit is configured to packetize each digital representation of a radio resource.	The Verizon / Corning Accused Instrumentalities satisfy this claim element. Corning's Everon 6000 DAS Solution meets the baseband controller of claim 8 wherein the baseband unit is configured to packetize each digital representation of a radio resource. *See* **Claim 2**.

Claim 10 - Element	Verizon / Corning's Infringement
The baseband controller of claim 8 wherein the digital representation of the first set of radio resources includes destination information identifying the first remote unit and the digital representation of the second set of radio resources includes destination information identifying the first remote unit.	The Verizon / Corning Accused Instrumentalities satisfy this claim element. Corning's Everon 6000 DAS Solution meets the baseband controller of claim 8 wherein the digital representation of the first set of radio resources includes destination information identifying the first remote unit and the digital representation of the second set of radio resources includes destination information identifying the first remote unit. *See* **Claim 3**.

Claim 11 - Element	Verizon / Corning's Infringement
The baseband controller of claim 8 wherein the first set of radio resources is a subset of the plurality of radio resources and includes at least some radio resources from the first signal source and at least some radio resources from the second signal source.	The Verizon / Corning Accused Instrumentalities satisfy this claim element. Corning's Everon 6000 DAS Solution meets the baseband controller of claim 8 wherein the first set of radio resources is a subset of the plurality of radio resources and includes at least some radio resources from the first signal source and at least some radio resources from the second signal source. *See* **Claim Elements 1-E**, **1-F**, and **1-G**.

Claim 13 - Element	Verizon / Corning's Infringement
The baseband controller of claim 8 wherein the plurality of radio resources include a first composite signal from the first signal source and a second composite signal from the second signal source, and the baseband unit is configured to form the digital representation of the first set of radio resources from a first subset of the first composite signal and a second subset of the second composite signal.	The Verizon / Corning Accused Instrumentalities satisfy this claim element. Corning's Everon 6000 DAS Solution meets the baseband controller of claim 8 wherein the plurality of radio resources include a first composite signal from the first signal source and a second composite signal from the second signal source, and the baseband unit is configured to form the digital representation of the first set of radio resources from a first subset of the first composite signal and a second subset of the second composite signal. *See* **Claim Elements 1-E**, **1-F**, and **1-G**.

Claim 14 - Element	Verizon / Corning's Infringement
[PREAMBLE] A method for providing digital signals in a Distributed Antenna System (DAS), comprising:	To the extent the preamble is interpreted to be limiting, the Verizon / Corning Accused Instrumentalities satisfies this preamble. On information and belief, and based on publicly available information, the Verizon / Corning Accused Instrumentalities satisfy each and every limitation of claim 14 by performing a method for providing digital signals in a Distributed Antenna System (DAS). *See* **Claim 1**. Further, this method is infringed by Verizon / Corning when the Verizon / Corning Accused Instrumentalities are tested and/or used by Verizon / Corning.
[ELEMENT 14-A] receiving at a baseband unit, from a plurality of signal sources including at least a first signal source and a second signal source, a plurality of radio resources;	The Verizon / Corning Accused Instrumentalities satisfy this claim element. Corning's Everon 6000 DAS Solution receives at a baseband unit, from a plurality of signal sources including at least a first signal source and a second signal source, a plurality of radio resources. *See* **Claim Element 1-E**.
[ELEMENT 14-B] transmitting from the baseband unit, at a first point in time, a digital representation of a first set of radio resources to a first remote unit, the first set of radio resources for	The Verizon / Corning Accused Instrumentalities satisfy this claim element. Corning's Everon 6000 DAS Solution transmits from the baseband unit, at a first point in time, a digital representation of a first set of radio resources to a first remote unit, the first set of radio resources for transmission at an antenna of the first remote unit. *See* **Claim Element 1-F**.

Claim 14 - Element	Verizon / Corning's Infringement
transmission at an antenna of the first remote unit;	
[ELEMENT 14-C] transmitting from the baseband unit, at a second point in time, a digital representation of a second set of radio resources to the first remote unit, the second set of radio resources for transmission at the antenna of the first remote unit;	The Verizon / Corning Accused Instrumentalities satisfy this claim element. Corning's Everon 6000 DAS Solution transmits from the baseband unit, at a second point in time, a digital representation of a second set of radio resources to the first remote unit, the second set of radio resources for transmission at the antenna of the first remote unit. *See* **Claim Element 1-G**.
[ELEMENT 14-D] wherein a number of radio resources in the first set of radio resources is different from a number of radio resources in the second set of radio resources.	The Verizon / Corning Accused Instrumentalities satisfy this claim element. Corning's Everon 6000 DAS Solution performs the method of claim 14, wherein a number of radio resources in the first set of radio resources is different from a number of radio resources in the second set of radio resources. *See* **Claim Element 1-H**.

Claim 15 - Element	Verizon / Corning's Infringement
The method of claim 14 wherein the digital representation of the first set of radio resources includes destination information identifying the first remote unit and the digital representation	The Verizon / Corning Accused Instrumentalities satisfy this claim element. Corning's Everon 6000 DAS Solution performs the method of claim 14 wherein the digital representation of the first set of radio resources includes destination information identifying the first remote unit and the digital representation of the second set of radio resources includes destination information identifying the second remote unit. *See* **Claim 3**.

Claim 15 - Element	Verizon / Corning's Infringement
of the second set of radio resources includes destination information identifying the second remote unit.	Further, this method is infringed by Verizon / Corning when the Verizon / Corning Accused Instrumentalities are tested and/or used by Verizon / Corning.

Claim 16 - Element	Verizon / Corning's Infringement
The method of claim 14 wherein the first set of radio resources is a subset of the plurality of radio resources and includes at least some radio resources from the first signal source and at least some radio resources from the second signal source.	The Verizon / Corning Accused Instrumentalities satisfy this claim element. Corning's Everon 6000 DAS Solution performs the method of claim 14 wherein the first set of radio resources is a subset of the plurality of radio resources and includes at least some radio resources from the first signal source and at least some radio resources from the second signal source. *See* **Claim Elements 1-E**, **1-F**, and **1-G**. Further, this method is infringed by Verizon / Corning when the Verizon / Corning Accused Instrumentalities are tested and/or used by Verizon / Corning.

Claim 18 - Element	Verizon / Corning's Infringement
The method of claim 14 wherein the plurality of radio resources include a first composite signal from the first signal source and a second composite signal from the second signal source, the method further comprising forming, at the baseband unit, the digital	The Verizon / Corning Accused Instrumentalities satisfy this claim element. Corning's Everon 6000 DAS Solution performs the method of claim 14 wherein the plurality of radio resources include a first composite signal from the first signal source and a second composite signal from the second signal source, the method further comprising forming, at the baseband unit, the digital representation of the first set of radio resources from a first subset of the first composite signal and a second subset of the second composite signal. *See* **Claim Elements 1-E**, **1-F**, and **1-G**. Further, this method is infringed by Verizon / Corning when the Verizon / Corning Accused Instrumentalities are tested and/or used by Verizon / Corning.

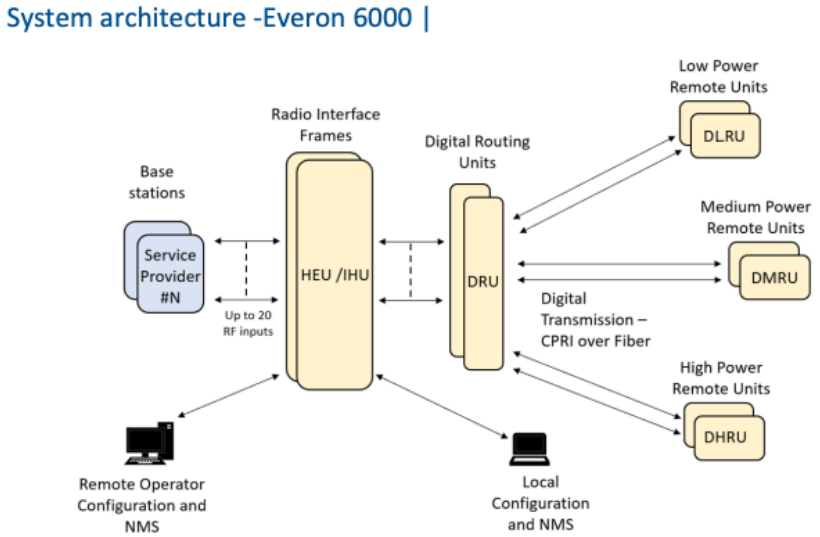
Claim 18 - Element	Verizon / Corning's Infringement
representation of the first set of radio resources from a first subset of the first composite signal and a second subset of the second composite signal.	

Claim 19 - Element	Verizon / Corning's Infringement
The method of claim 14 further comprising packetizing, at the baseband unit, at least a subset of the plurality of radio resources.	The Verizon / Corning Accused Instrumentalities satisfy this claim element. Corning's Everon 6000 DAS Solution performs the method of claim 14 further comprising packetizing, at the baseband unit, at least a subset of the plurality of radio resources. *See* **Claim 2**. Further, this method is infringed by Verizon / Corning when the Verizon / Corning Accused Instrumentalities are tested and/or used by Verizon / Corning.

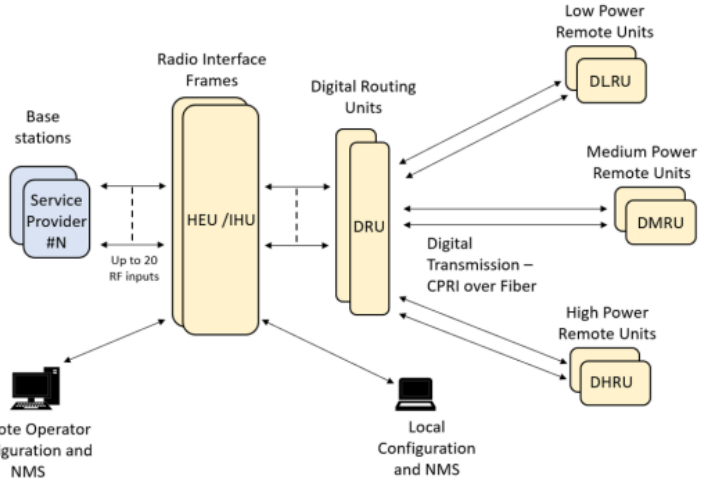
Exhibit I

Plaintiff Dali Wireless Inc. ("Dali") contends that Defendants Cellco Partnership D/B/A Verizon Wireless, Verizon Corporate Services Group Inc., Verizon Online LLC (collectively, "Verizon"), Corning Inc., and Corning Optical Communications LLC (collectively, "Corning") (altogether, "Verizon / Corning") infringe the below-identified claims of Dali's U.S. Patent No. 11,006,343 (the '343 Patent) by deploying, operating, maintaining, testing, and using Verizon's LTE and 5G networks which include equipment relating to small cell wireless solutions, such as Corning's Everon 6000 solutions (including, but not limited to, the Integrated Head-end Unit (IHU), Head End Unit (HEU), Digital Routing Unit (DRU), Low Power Remote Unit (LRU), Medium Power Remote Unit (MRU), High Power Remote Unit (HRU), cabling and switches, and any software running thereon) (collectively, "Verizon / Corning Accused Instrumentalities"). The specific components, systems, and constructs identified in this chart are for exemplary purposes only and Dali reserves all rights to supplement as additional components, systems, and constructs become known through discovery, as well as after Verizon / Corning produces documents and source code and/or the Court construes any terms from the claims of the '343 Patent. Claims 1, 4, 8-10, 12, 15, and 19-21 are infringed under 35 U.S.C. § 271(a) when Verizon / Corning uses the Verizon / Corning wireless solutions.

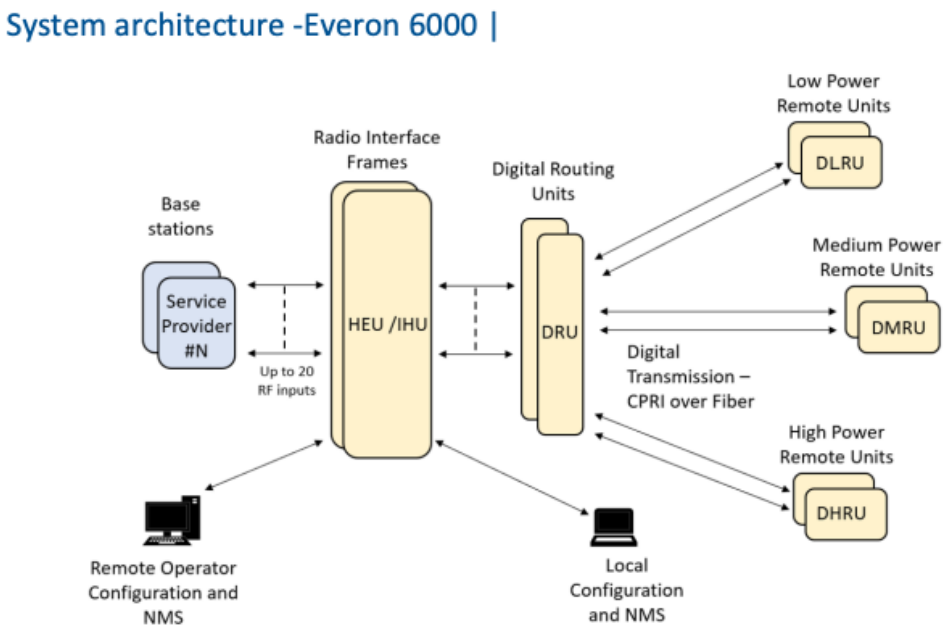
Claim 1 – Element	Verizon / Corning's Infringement
[PREAMBLE] A system to transport wireless communications, comprising	To the extent that the Court deems the preamble of Claim 1 to be limiting, Verizon / Corning's wireless solutions meets this claim element. Corning Everon 6000 DAS Solutions provide a system to transport wireless communications. For example, according to Corning's publicly available documents, "Corning Everon 6000 DAS is an advanced inbuilding cellular service solution for small, medium and large size venues, supporting a broad range of cellular generations: 3G, 4G and 5G." DALIVZN-000364. Corning Everon 6000 DAS solutions are "based on digital distribution architecture, advanced digital processing, and channelized implementation, enabling efficient utilization of digital links." *Id.* Moreover, Corning Everon 6000 DAS solutions are "highly scalable in terms of supported capacity (number of sectors, frequency bands, channels) and remote units (coverage), and can be easily configured to support a large variety of deployment scenarios including single and multi-building ('Campus') network topologies." *Id.*

Claim 1 – Element	Verizon / Corning's Infringement
[ELEMENT 1-A] a digital access unit;	Verizon / Corning's wireless solutions meet this claim element. Corning Everon 6000 DAS solutions comprise a digital access unit. For example, Corning Everon 6000 DAS solutions include "Radio Interface frames" that "are modular chassis used for interface between the base stations and the Everon 6000":  DALIVZN-000365. Further, Corning Everon 6000 DAS solutions may be comprised of "two types of Chassis: IHU (Integrated Head-end Unit) and HEU (Head End Unit). The IHU can interface up to 8 RF duplexed ports (or 16 UL/DL simplex ports) and can be expanded by an HEU radio interface frame which provides interface capabilities for additional 12 RF duplexed ports (or 24 UL/DL simplex ports)." *Id.* Corning Everon 6000 DAS solutions also include a "DRU - Digital Routing Unit" that is the "Everon 6000 central Hub and Distribution element." DALIVZN-000366. "The DRU interfaces between the DCM modules and the IHU Radio

Claim 1 – Element	Verizon / Corning's Infringement
	Interface Frames, allowing to receive the operators service signals in CPRI format, and to route these signals to the remote antenna units." *Id.*
[ELEMENT 1-B] a plurality of signal sources, including at least a first signal source and a second signal source;	Verizon / Corning's wireless solutions meet this claim element. Corning Everon 6000 DAS solutions comprise a plurality of signal sources, including at least a first signal source and a second signal source. For example, Corning Everon 6000 DAS solutions "[s]upport[] multi-operator, multi-band, multi-technology services over a single infrastructure. Supports single and multi-building ('campus') network architectures." DALIVZN-000364. Further, "The DRU interfaces between the DCM modules and the IHU Radio Interface Frames, allowing to receive the operators service signals in CPRI format, and to route these signals to the remote antenna units." DALIVZN-000366.
[ELEMENT 1-C] a plurality of remote units, including at least a first remote unit and a second remote unit;	Verizon / Corning's wireless solutions meet this claim element. Corning Everon 6000 DAS solutions comprise a plurality of remote units, including at least a first remote unit and a second remote unit. For example, Corning Everon 6000 DAS solutions are "highly scalable in terms of supported capacity (number of sectors, frequency bands, channels) and remote units (coverage), and can be easily configured to support a large variety of deployment scenarios including single and multi-building ('Campus') network topologies." DALIVZN-000364.

Claim 1 – Element	Verizon / Corning's Infringement
	System architecture -Everon 6000 |  DALIVZN-000365. Further, Corning Everon 6000 DAS solutions "offer[] multiple types of digital remote units, supporting a variety of frequency band combinations, SISO/MIMO configurations, with different power levels ranging from 20 dBm per band to 43 dBm per band." DALIVZN-000364.

Claim 1 – Element	Verizon / Corning's Infringement
	LRU - Low power Remote Unit The LRU is a low power remote antenna unit with 20 dBm per MIMO stream per band output RF power and native support of 2x2 MIMO antenna scheme. Two types of LRU are available: Low band LRU - supports 600 MHz (band 71), 700 MHz Low (band 12), 700 MHz High (bnad13), FirstNet (band 14), 800/850 MHz (band 26) bands via one SFP+ connection. Medium Band LRU - supports EAWS (band 66), PCS (band 25), WCS (band 30) and 2.5GHz TDD (band 41) services via 3 SFP+ connections. The LRU cooling is natural convection with no fans. Due to its IP66 enclosure design the LRU can also be installed outdoors. **MRU – Medium-power Remote Unit** The MRU is a medium power modular remote antenna unit with a single antenna port. The output power for the lower bands: 600/700 MHz Low/700 MHz High/FirstNet, 800/850 MHz is 33 dBm and the output power for the medium bands EAWS, PCS, WCS and 2.5GHz TDD is 37dBm. Two SFP+ connections are used to support all the bands. The MRU modular structure and integrated high-performance cavity based multiplexing functionalities, enable setups of up to 6 RF modules, for a variety of licensed frequency bands within a single cabinet. The MRU also provides CBRS/C-Band ready RF interface for future field upgrades. **HRU – High-power Remote Unit** The HRU is a high power modular remote antenna unit which provides 43 dBm output RF power per service module, and native support of 2x2 MIMO antenna scheme. The HRU modular structure enables set ups of up to 8 service modules in 600/700 MHz Low/700 MHz High/FirstNet, 800/850 MHz, EAWS, PCS, WCS and 2.5GHz TDD. The HRU cooling is based on natural convection, with no fans. Due to its IP65 enclosure design the HRU can also be installed outdoors. DALIVZN-000366.
[ELEMENT 1-D] wherein the digital access unit comprises a plurality of interfaces to communicatively couple the digital access unit to the plurality of signal sources;	Verizon / Corning's wireless solutions meet this claim element. The digital access unit in Corning Everon 6000 DAS solutions comprises a plurality of interfaces to communicatively couple the digital access unit to the plurality of signal sources. For example, Corning Everon 6000 DAS solutions provide a "Multi-X system" which "[s]upports multi-operator, multi-band, multi-technology services over a single infrastructure." DALIVZN-000364. Moreover, "[t]he DRU interfaces between the DCM modules and the IHU Radio Interface Frames, allowing to receive the operators service signals in CPRI format, and to route these signals to the remote antenna units." DALIVZN-000366.

Claim 1 – Element	Verizon / Corning's Infringement
	 DALIVZN-000365.
[ELEMENT 1-E] wherein the digital access unit is configured to receive a plurality of radio resources from the first signal source and the second signal source;	Verizon / Corning's wireless solutions meet this claim element. The digital access unit in Corning Everon 6000 DAS solutions is configured to receive a plurality of radio resources from the first signal source and the second signal source. For example, Corning Everon 6000 DAS solutions provide "[a]dvanced network configuration and management capabilities [that] enable on-site as well as remote end-to-end configuration, system diagnostics, maintenance and support operators NOC connectivity." DALIVZN-000364. Further, Corning Everon 6000 DAS solutions are "highly scalable in terms of supported capacity (number of sectors, frequency bands, channels) and remote units (coverage), and can easily be configured to support a large variety of deployment scenarios including single and multi-building ("Campus") network topologies." DALIVZN-000364.

Claim 1 – Element	Verizon / Corning's Infringement
	Features and benefits | **Comprehensive service Support** — 600 MHz, 700 MHz, FirstNet, 800/850 MHz, 1900 (PCS), EAWS, 2.3 GHz (WCS), 2.5 GHz (TDD). Support of SISO and MIMO services, FDD and TDD formats. Supports 3G, 4G, 5G technologies **Multi-X system** — Supports multi-operator, multi-band, multi-technology services over a single infrastructure. Supports single and multi-building ("campus") network architectures **Highly modular/ Highly scalable** — Can be easily expanded to support additional capacity: sectors, frequency bands, channels and coverage areas via extending the number of remotes **Advanced Digital Signal Processing** — Provides higher dynamic range, enables per channel granularity, delivers enhanced overall power efficiency and improves overall system performance **Digital CPRI based Transport** — Provides robust signal distribution. Ready for future direct interfaces interoperability with digital based capacity sources (e.g. BBUs/DUs) **Digital Service and capacity routing** — Enables advanced capacity and coverage management through flexible routing configuration management **Carrier-grade network management** — Network configuration and management capabilities enable on-site as well as remote end-to-end configuration, system diagnostics, maintenance, support management and control by operators NOC DALIVZN-000364. Further, as a part of Corning's Everon 6000 DAS solution, the Building Wireless System (BWS) features dynamic load balancing and resource management:

Claim 1 – Element	Verizon / Corning's Infringement
	➢ **Flexible and economic traffic management; Optimized network utilization:** A unique combination of smart traffic management techniques, allowing load (and thus cost) reduction based. These optimizations are achieved via automated management considerations and path selection techniques. e.g.: **Dynamic routing** (from each vBBU port to each remote port and vice versa); **Advanced clusterization logic** (up to 24 clusters; allows downlink forking and then uplink summing, to reduce CPRI throughput); **capacity steering techniques**, and more. DALIVZN-000402.
[ELEMENT 1-F] wherein the digital access unit is configured to send a digital representation of a first set of radio resources to the first remote unit at a first point in time, the first set of radio resources for transmission at an antenna of the first remote unit;	Verizon / Corning's wireless solutions meet this claim element. On information and belief, the digital access unit in Corning Everon 6000 DAS solutions sends digital representations of radio resources to remote units, including a first set of radio resources at a first point in time. For example, Corning's Everon 6000 DAS solutions provide "[a]dvanced network configuration and management capabilities [that] enable on-site as well as remote end-to-end configuration, system diagnostics, maintenance and support operators NOC connectivity." DALIVZN-000364. Corning's Everon 6000 DAS solutions are "highly scalable in terms of supported capacity (number of sectors, frequency bands, channels) and remote units (coverage), and can easily be configured to support a large variety of deployment scenarios including single and multi-building ("Campus") network topologies." *Id.*

Claim 1 – Element	Verizon / Corning's Infringement

Features and benefits |

Comprehensive service Support	600 MHz, 700 MHz, FirstNet, 800/850 MHz, 1900 (PCS), EAWS, 2.3 GHz (WCS), 2.5 GHz (TDD). Support of SISO and MIMO services, FDD and TDD formats. Supports 3G, 4G, 5G technologies
Multi-X system	Supports multi-operator, multi-band, multi-technology services over a single infrastructure. Supports single and multi-building ("campus") network architectures
Highly modular/ Highly scalable	Can be easily expanded to support additional capacity: sectors, frequency bands, channels and coverage areas via extending the number of remotes
Advanced Digital Signal Processing	Provides higher dynamic range, enables per channel granularity, delivers enhanced overall power efficiency and improves overall system performance
Digital CPRI based Transport	Provides robust signal distribution. Ready for future direct interfaces interoperability with digital based capacity sources (e.g. BBUs/DUs)
Digital Service and capacity routing	Enables advanced capacity and coverage management through flexible routing configuration management
Carrier-grade network management	Network configuration and management capabilities enable on-site as well as remote end-to-end configuration, system diagnostics, maintenance, support management and control by operators NOC

Id.

Additionally, "Corning Everon 6000 DAS is based on digital distribution architecture, advanced digital processing, and channelized implementation, enabling efficient utilization of digital links. The solution is designed to support multiband, multi-technology and multi-operator networks over a single fibre-based infrastructure." *Id.*

Claim 1 – Element	Verizon / Corning's Infringement
	Radio Interface Frames (Point of Interface) Radio Interface frames are modular chassis used for interface between the base stations and the Everon 6000. A system may be comprised of two types of Chassis: IHU (Integrated Head-end Unit) and HEU (Head End Unit). The IHU can interface up to 8 RF duplexed ports (or 16 UL/DL simplex ports) and can be expanded by an HEU radio interface frame which provides interface capabilities for additional 12 RF duplexed ports (or 24 UL/DL simplex ports). The following modules are used with the radio interface frames: • RIMe (Radio Interface Module Enhanced) - provides an interface and signal conditioning to signals coupled between the signal source RF antenna ports and the Everon 6000 (uplink and downlink) • DCM (Digital Conversion Module) - Provides RF to CPRI (Downlink) and CPRI to RF (Uplink) conversion, where the well-known CPRI (Common Public Radio Interface) standard is used for representing the RF signals. Each DCM may convert signals capturing up to 190 MHz aggregated bandwidth. • RIX (Radio Interface Expander) – combines downlink signals of the HEU and IHU RIMe's and provides the combined signals to the OIX, splits uplink signals arriving from the OIX to the HEU and IHU RIMe's. • OIX (Optical Interface Expander) – combines downlink signals arriving from the HEU RIX and the IHU RIX and splits the uplink signal for the HEU RIX and the IHU RIX uplink ports. • PSM (Power Supply Module) – provides power to the radio interface frame • dHCM (Digital Head-End Control Module) is a "master" frame controller • ACM (Auxiliary Control Module) is a "slave" frame controller controlled by the dHCM DALIVZN-000365. Further, as a part of Corning's Everon 6000 DAS solution, the Building Wireless System (BWS) features dynamic load balancing and resource management: ➢ **Flexible and economic traffic management; Optimized network utilization:** A unique combination of smart traffic management techniques, allowing load (and thus cost) reduction based. These optimizations are achieved via automated management considerations and path selection techniques. e.g.: **Dynamic routing** (from each vBBU port to each remote port and vice versa); **Advanced clusterization logic** (up to 24 clusters; allows downlink forking and then uplink summing, to reduce CPRI throughput); **capacity steering techniques**, and more. DALIVZN-000402.
[ELEMENT 1-G] wherein the digital access unit is configured to send a digital representation of a second set of radio resources to the first remote unit at a second point in time, the second set of radio resources for	Verizon / Corning's wireless solutions meet this claim element. On information and belief, the digital access unit in Corning Everon 6000 DAS solutions sends digital representations of radio resources to remote units, including a second set of radio resources at a second point in time. For example, Corning Everon 6000 DAS solutions provide "[a]dvanced network configuration and management capabilities [that] enable on-site as well as remote end-to-

<table>
<tr><th>Claim 1 – Element</th><th>Verizon / Corning's Infringement</th></tr>
<tr><td>transmission at the antenna of the first remote unit;</td><td>end configuration, system diagnostics, maintenance and support operators NOC connectivity." DALIVZN-000364. Corning Everon 6000 DAS solutions are "highly scalable in terms of supported capacity (number of sectors, frequency bands, channels) and remote units (coverage), and can easily be configured to support a large variety of deployment scenarios including single and multi-building ("Campus") network topologies." Id.

Features and benefits |

<table>
<tr><td>Comprehensive service Support</td><td>600 MHz, 700 MHz, FirstNet, 800/850 MHz, 1900 (PCS), EAWS, 2.3 GHz (WCS), 2.5 GHz (TDD). Support of SISO and MIMO services, FDD and TDD formats. Supports 3G, 4G, 5G technologies</td></tr>
<tr><td>Multi-X system</td><td>Supports multi-operator, multi-band, multi-technology services over a single infrastructure. Supports single and multi-building ("campus") network architectures</td></tr>
<tr><td>Highly modular/ Highly scalable</td><td>Can be easily expanded to support additional capacity: sectors, frequency bands, channels and coverage areas via extending the number of remotes</td></tr>
<tr><td>Advanced Digital Signal Processing</td><td>Provides higher dynamic range, enables per channel granularity, delivers enhanced overall power efficiency and improves overall system performance</td></tr>
<tr><td>Digital CPRI based Transport</td><td>Provides robust signal distribution. Ready for future direct interfaces interoperability with digital based capacity sources (e.g. BBUs/DUs)</td></tr>
<tr><td>Digital Service and capacity routing</td><td>Enables advanced capacity and coverage management through flexible routing configuration management</td></tr>
<tr><td>Carrier-grade network management</td><td>Network configuration and management capabilities enable on-site as well as remote end-to-end configuration, system diagnostics, maintenance, support management and control by operators NOC</td></tr>
</table>

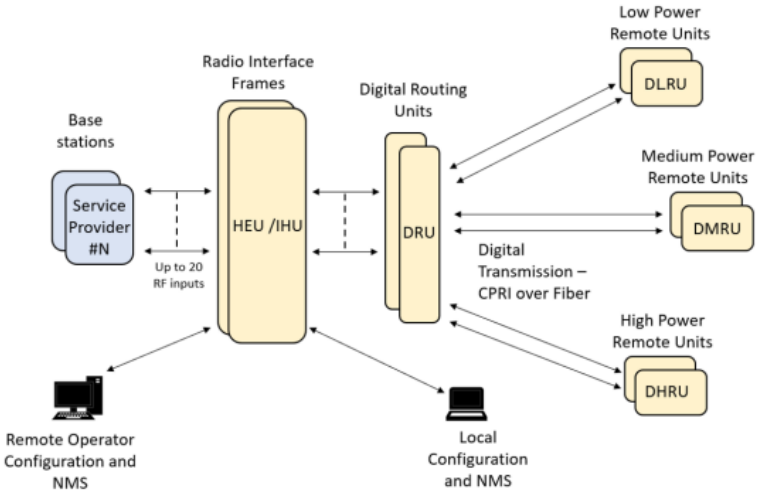
Id.</td></tr>
</table>

Claim 1 – Element	Verizon / Corning's Infringement
	Additionally, "Corning Everon 6000 DAS is based on digital distribution architecture, advanced digital processing, and channelized implementation, enabling efficient utilization of digital links. The solution is designed to support multiband, multi-technology and multi-operator networks over a single fibre-based infrastructure." *Id.* **Radio Interface Frames (Point of Interface)** Radio Interface frames are modular chassis used for interface between the base stations and the Everon 6000. A system may be comprised of two types of Chassis: IHU (Integrated Head-end Unit) and HEU (Head End Unit). The IHU can interface up to 8 RF duplexed ports (or 16 UL/DL simplex ports) and can be expanded by an HEU radio interface frame which provides interface capabilities for additional 12 RF duplexed ports (or 24 UL/DL simplex ports). The following modules are used with the radio interface frames: • RIMe (Radio Interface Module Enhanced) - provides an interface and signal conditioning to signals coupled between the signal source RF antenna ports and the Everon 6000 (uplink and downlink) • DCM (Digital Conversion Module) - Provides RF to CPRI (Downlink) and CPRI to RF (Uplink) conversion, where the well-known CPRI (Common Public Radio Interface) standard is used for representing the RF signals. Each DCM may convert signals capturing up to 190 MHz aggregated bandwidth. • RIX (Radio Interface Expander) – combines downlink signals of the HEU and IHU RIMe's and provides the combined signals to the OIX, splits uplink signals arriving from the OIX to the HEU and IHU RIMe's. • OIX (Optical Interface Expander) – combines downlink signals arriving from the HEU RIX and the IHU RIX and splits the uplink signal for the HEU RIX and the IHU RIX uplink ports. • PSM (Power Supply Module) – provides power to the radio interface frame • dHCM (Digital Head-End Control Module) is a "master" frame controller • ACM (Auxiliary Control Module) is a "slave" frame controller controlled by the dHCM DALIVZN-000365. Further, as a part of Corning's Everon 6000 DAS solution, the Building Wireless System (BWS) features dynamic load balancing and resource management: ➢ **Flexible and economic traffic management; Optimized network utilization:** A unique combination of smart traffic management techniques, allowing load (and thus cost) reduction based. These optimizations are achieved via automated management considerations and path selection techniques. e.g.: **Dynamic routing** (from each vBBU port to each remote port and vice versa); **Advanced clusterization logic** (up to 24 clusters; allows downlink forking and then uplink summing, to reduce CPRI throughput); **capacity steering techniques**, and more. DALIVZN-000402.

Claim 1 – Element	Verizon / Corning's Infringement
[ELEMENT 1-H] wherein a number of radio resources in the first set of radio resources is different from a number of radio resources in the second set of radio resources at least based on dynamic load balancing and resource management; and	Verizon / Corning's wireless solutions meet this claim element. For example, as explained above in **ELEMENTS [1-F] and [1G]**, the digital access unit in Corning Everon 6000 DAS solutions is configured to send digital representations of radio resources to a remote unit. On information and belief, the digital access unit in Corning Everon 6000 DAS solutions is configured to send a number of radio resources in the first set of radio resources that is different from a number of radio resources in the second set of radio resources at least based on dynamic load balancing and resource management. For example, as a part of Corning's Everon DAS solution, the Building Wireless System (BWS) features dynamic load balancing and resource management: ➢ **Flexible and economic traffic management; Optimized network utilization:** A unique combination of smart traffic management techniques, allowing load (and thus cost) reduction based. These optimizations are achieved via automated management considerations and path selection techniques. e.g.: **Dynamic routing** (from each vBBU port to each remote port and vice versa); **Advanced clusterization logic** (up to 24 clusters; allows downlink forking and then uplink summing, to reduce CPRI throughput); **capacity steering techniques**, and more. DALIVZN-000402.
[ELEMENT 1-I] wherein the digital access unit is configured to receive digital signals from each of the plurality of remote units.	Verizon / Corning's wireless solutions meet this claim element. For example, as explained above in **ELEMENTS [1-F] and [1G]**, Corning Everon 6000 DAS solutions are configured to send digital representations of radio resources to a remote unit. On information and belief the digital access unit in Corning Everon 6000 DAS solutions is also configured to receive digital signals from each of the plurality of remote units. For example, "Corning Everon 6000 DAS is based on digital distribution architecture, advanced digital processing, and channelized implementation, enabling efficient utilization of digital links." DALIVZN-000364.

Claim 1 – Element	Verizon / Corning's Infringement

System architecture -Everon 6000 |



Radio Interface Frames (Point of Interface)

Radio Interface frames are modular chassis used for interface between the base stations and the Everon 6000. A system may be comprised of two types of Chassis: IHU (Integrated Head-end Unit) and HEU (Head End Unit). The IHU can interface up to 8 RF duplexed ports (or 16 UL/DL simplex ports) and can be expanded by an HEU radio interface frame which provides interface capabilities for additional 12 RF duplexed ports (or 24 UL/DL simplex ports). The following modules are used with the radio interface frames:

- RIMe (Radio Interface Module Enhanced) - provides an interface and signal conditioning to signals coupled between the signal source RF antenna ports and the Everon 6000 (uplink and downlink)
- DCM (Digital Conversion Module) - Provides RF to CPRI (Downlink) and CPRI to RF (Uplink) conversion, where the well-known CPRI (Common Public Radio Interface) standard is used for representing the RF signals. Each DCM may convert signals capturing up to 190 MHz aggregated bandwidth.
- RIX (Radio Interface Expander) – combines downlink signals of the HEU and IHU RIMe's and provides the combined signals to the OIX, splits uplink signals arriving from the OIX to the HEU and IHU RIMe's.
- OIX (Optical Interface Expander) – combines downlink signals arriving from the HEU RIX and the IHU RIX and splits the uplink signal for the HEU RIX and the IHU RIX uplink ports.
- PSM (Power Supply Module) – provides power to the radio interface frame
- dHCM (Digital Head-End Control Module) is a "master" frame controller
- ACM (Auxiliary Control Module) is a "slave" frame controller controlled by the dHCM

DALIVZN-000365.

Claim 1 – Element	Verizon / Corning's Infringement
	Further, as a part of Corning's Everon 6000 DAS solution, the Building Wireless System (BWS) features dynamic load balancing and resource management: ➢ **Flexible and economic traffic management; Optimized network utilization:** A unique combination of smart traffic management techniques, allowing load (and thus cost) reduction based. These optimizations are achieved via automated management considerations and path selection techniques. e.g.: **Dynamic routing** (from each vBBU port to each remote port and vice versa); **Advanced clusterization logic** (up to 24 clusters; allows downlink forking and then uplink summing, to reduce CPRI throughput); **capacity steering techniques**, and more. DALIVZN-000402.

Claim 4	Verizon / Corning's Infringement
The system of claim 1, wherein the dynamic load balancing and resource management dynamically adjusts a capacity of at least the first remote unit.	Verizon / Corning's wireless solutions meet this claim element. *See* **Claim 1**, *supra*. On information and belief, Corning's Everon™ 6000 DAS solutions are configured to send a number of radio resources in the first set of radio resources that is different from a number of radio resources in the second set of radio resources at least based on dynamic load balancing and resource management, wherein the dynamic load balancing and resource management dynamically adjusts the capacity of at least the first remote unit. For example, as a part of Corning's Everon™ DAS solution, the Building Wireless System (BWS) features dynamic load balancing and resource management: ➢ **Flexible and economic traffic management; Optimized network utilization:** A unique combination of smart traffic management techniques, allowing load (and thus cost) reduction based. These optimizations are achieved via automated management considerations and path selection techniques. e.g.: **Dynamic routing** (from each vBBU port to each remote port and vice versa); **Advanced clusterization logic** (up to 24 clusters; allows downlink forking and then uplink summing, to reduce CPRI throughput); **capacity steering techniques**, and more. DALIVZN-000402.

Claim 8	Verizon / Corning's Infringement
The system of claim 1, wherein the dynamic load balancing and resource management uses network capacity to route signal traffic in the system.	Verizon / Corning's wireless solutions meet this claim element. *See* **Claim 1**, *supra*. On information and belief, Corning's Everon 6000 solutions are configured to send a number of radio resources in the first set of radio resources that is different from a number of radio resources in the second set of radio resources at least based on dynamic load balancing and resource management, wherein the dynamic load balancing and resource management uses network capacity to route signal traffic in the system. For example, as a part of Corning's Everon DAS solution, the Building Wireless System (BWS) features dynamic load balancing and resource management: ➢ **Flexible and economic traffic management; Optimized network utilization:** A unique combination of smart traffic management techniques, allowing load (and thus cost) reduction based. These optimizations are achieved via automated management considerations and path selection techniques. e.g.: **Dynamic routing** (from each vBBU port to each remote port and vice versa); **Advanced clusterization logic** (up to 24 clusters; allows downlink forking and then uplink summing, to reduce CPRI throughput); **capacity steering techniques**, and more. DALIVZN-000402.

Claim 9	Verizon / Corning's Infringement
The system of claim 1, wherein the first remote unit is a low power radio capable of using multiple frequency bands.	Verizon / Corning's wireless solutions meet this claim element. *See* **Claim 1**, *supra*. For example, Corning's Everon 6000 solutions include at least Low power Remote Units, which are low power and capable of using multiple frequency bands. For example, "Corning Everon 6000 offers multiple types of digital remote units, supporting a variety of frequency band combinations, SISO/MIMI configurations, with different power levels ranging from 20 dBm per band to 43 dBm per band." DALIVZN-000364.

Claim 9	Verizon / Corning's Infringement
	LRU - Low power Remote Unit The LRU is a low power remote antenna unit with 20 dBm per MIMO stream per band output RF power and native support of 2x2 MIMO antenna scheme. Two types of LRU are available: Low band LRU - supports 600 MHz (band 71), 700 MHz Low (band 12), 700 MHz High (bnad13), FirstNet (band 14), 800/850 MHz (band 26) bands via one SFP+ connection. Medium Band LRU - supports EAWS (band 66), PCS (band 25), WCS (band 30) and 2.5GHz TDD (band 41) services via 3 SFP+ connections. The LRU cooling is natural convection with no fans. Due to its IP66 enclosure design the LRU can also be installed outdoors. DALIVZN-000366.

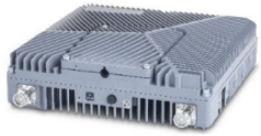
Claim 9	Verizon / Corning's Infringement

Low Band LRU-Low power Remote Unit

P/N: dLRU-678

End to End System Performance

Headend to Digital Low power Remote Unit



RF Specifications						
Frequency Range Name			600	700L & 700U & FirstNet		800/850
Frequency Range	Uplink	MHz	663-698	698-716	776-798	817-849
	Downlink		617-652	728-746	746-768	862-894
Max. Operating Bandwidth-Non-contiguous		MHz	Full Band			
Instantaneous Bandwidth		MHz	35	18	21	32
Downlink Output Power (LRU)		dBm	20	20		20
Attenuation Adjustable Range (1dB step)		dB	0-20			
Pass Band Ripple (p-p)		dB	≤ 4	≤ 4	≤ 4	≤ 4
Channel Bandwidth		MHz	5/10/15/20			
Uplink Noise Figure (typical)		dB	12			
Uplink IIP3 (typical)		dBm	-14			
VSWR			≤ 1.8			
EVM (256 QAM) (TM3.1A @ Rated power)		%	< 3.5			
Spurious Emission			3GPP TS 36.106/25.106; 3GPP TS 38.104 V15.5.0 (sections 6; 7)			
Electrical Specifications						
Power Consumption		Watt	70			
DC voltage		DC	36-57			
Interfaces and Mechanical						
CPRI Port			1, SFP+ 10.1Gbps			
Antenna Ports			2, 4.3-10 female			
Dimension (W x H x D)		Inch (mm)	9.84 x 10.63 x 2.75 (250 x 270 x70)			
Weight		Lbs (Kg)	13 (6)			
Mounting and installation			Wall, ceiling and pole mount options			
Cooling			Convection			
Environmental						
Operational Temperature		°F (°C)	-40° to 131° (-40° to 55°)			
Outdoor installation (Ingress Protection)			IP 66			

*Technical spec subject to change without notice

DALIVZN-000373.

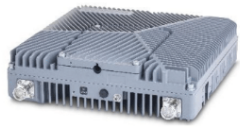
Claim 9	Verizon / Corning's Infringement

Medium Band LRU- Low power Remote Unit

P/N: dLRU-17192325

End to End System Performance

Headend to Digital Low power Remote Unit



RF						
Frequency Range Name			1900	EAWS	WCS	2500
Frequency Range	Uplink	MHz	1850-1915	1710-1780	2305-2315	2496-2690
	Downlink		1930-1995	2110-2180	2350-2360	2496-2690
Max. Operating Bandwidth-Non-contiguous		MHz	Full Band			
Instantaneous Bandwidth		MHz	65	70	10	60 + 60
Downlink Output Power (LRU)		dBm	20	20	18	20
ATT Adjustable Range (1dB step)		dB	0-20			
Pass Band Ripple (p-p)		dB	≤ 4	≤ 4	≤ 4	≤ 4
Channel Bandwidth		MHz	5/10/15/20			5/10/15/20 for 4G 40 or 60 for 5G
Uplink Noise Figure (typical)		dB	12			
Uplink IIP3 (typical)		dBm	-14			
VSWR			≤ 1.8			
EVM (256 QAM)		%	< 3.5			
Spurious Emission			3GPP TS 36.106/25.106; 3GPP TS 38.104 V15.5.0 (sections 6; 7); 3GPP TR 36.846 V12.0.0			
Electrical Specifications						
Power Consumption		Watt	80			
DC voltage		DC	36-57			
Interfaces and Mechanical						
CPRI Port			3, SFP+ 10.1Gbps			
Antenna Ports			2 ,4.3-10 female			
Dimension (W x H x D)		Inch (mm)	9.84 x 10.63 x 2.75 (250 x 270 x 70)			
Weight		Lbs (Kg)	13 (6)			
Mounting and installation			Wall, ceiling and pole mount options			
Cooling			Convection			
Environmental						
Operational Temperature		°F (°C)	-40° to 131° (-40° to 55°)			
Outdoor installation (Ingress Protection)			IP 66			

*Technical spec subject to change without notice

DALIVZN-000374.

Claim 10	Verizon / Corning's Infringement
The system of claim 1, wherein the digital signals communicated between the digital access unit and the remote units are sent via optical cables.	Verizon / Corning's wireless solutions meet this claim element. *See* **Claim 1**, *supra*. For example, Corning's Everon 6000 DAS solutions can use optical cables to communicate digital signals between the digital access unit and the remote units: For example, "[t]he solution is designed to support multi-band, multi-technology and multi-operator networks over a single fibre-based infrastructure." DALIVZN-000364.

Claim 12 - Element	Verizon / Corning's Infringement
[PREAMBLE] A method for wireless communications comprising:	To the extent that the Court deems the preamble of Claim 12 to be limiting, Verizon / Corning's wireless solutions meet this claim element. For example, Corning's Everon 6000 DAS solutions provide a method for wireless communications. *See* **Claim 1 – [PREAMBLE]**, *supra.* Further, this method is infringed by Verizon / Corning when Corning Everon 6000 DAS solutions are tested and/or used by Verizon / Corning.
[ELEMENT 12-A] receiving, at a digital access unit, a plurality of radio resources from a first signal source and a second signal source, wherein the digital access unit comprises a plurality of interfaces to communicatively couple the digital access unit to a plurality of signal sources;	Verizon / Corning's wireless solutions meet this claim element. For example, Corning Everon 6000 DAS solutions include a digital access unit that receives a plurality of radio resources from a first signal source and a second signal source, wherein the digital access unit comprises a plurality of interfaces to communicatively couple the digital access unit to a plurality of signal sources. *See* **Claim 1 – [ELEMENT 1-A]** through **[ELEMENT 1-E]**, *supra*. Further, this method is infringed by Verizon / Corning when Corning Everon 6000 DAS solutions are tested and/or used by Verizon / Corning.
[ELEMENT 12-B] sending, by the digital access unit, a digital representation of a first set of radio resources to a first remote unit at a first point in time, the first set of	Verizon / Corning's wireless solutions meet this claim element. For example, Corning Everon 6000 DAS solutions include a digital access unit which sends a digital representation of a first set of radio resources to a first remote unit at a first point in time, the first set of radio resources for transmission at an antenna of the first remote unit. *See* **Claim 1 – [ELEMENT 1-F]**, *supra*.

Claim 12 - Element	Verizon / Corning's Infringement
radio resources for transmission at an antenna of the first remote unit; and	Further, this method is infringed by Verizon / Corning when Corning Everon 6000 DAS solutions are tested and/or used by Verizon / Corning.
[ELEMENT 12-C] sending, by the digital access unit, a digital representation of a second set of radio resources to the first remote unit at a second point in time, the second set of radio resources for transmission at the antenna of the first remote unit,	Verizon / Corning's wireless solutions meet this claim element. For example, Corning Everon 6000 DAS solutions include a digital access unit which sends a digital representation of a second set of radio resources to the first remote unit at a second point in time, the second set of radio resources for transmission at the antenna of the first remote unit. *See* **Claim 1 – [ELEMENT 1-G]**, *supra*. Further, this method is infringed by Verizon / Corning when Corning Everon 6000 DAS solutions are tested and/or used by Verizon / Corning.
[ELEMENT 12-D] wherein a number of radio resources in the first set of radio resources is different from a number of radio resources in the second set of radio resources at least based on dynamic load balancing and resource management.	Verizon / Corning's wireless solutions meet this claim element. For example, Corning Everon 6000 DAS solutions include a digital access unit which sends a digital representation of a first set of radio resources and a digital representation of a second set of radio resources to a first remote unit, wherein a number of radio resources in the first set of radio resources is different from a number of radio resources in the second set of radio resources at least based on dynamic load balancing and resource management. *See* **Claim 1 – [ELEMENT 1-H]**, *supra*. Further, this method is infringed by Verizon / Corning when Corning Everon 6000 DAS solutions are tested and/or used by Verizon / Corning.

Claim 15	Verizon / Corning's Infringement
The method of claim 12, wherein the dynamic load balancing and resource management dynamically adjusts a capacity of at least the first remote unit.	Verizon / Corning's wireless solutions meet this claim element. *See* **Claim 12**, *supra.* For example, Corning Everon 6000 DAS solutions include a digital access unit which sends a digital representation of a first set of radio resources and a digital representation of a second set of radio resources to a first remote unit, wherein a number of radio resources in the first set of radio resources is different from a number of radio resources in the second set of radio resources at least based on dynamic load balancing and resource management, and wherein the dynamic load balancing and resource management dynamically adjusts a capacity of at least the first remote unit. *See* **Claim 4**, *supra.*

Claim 15	Verizon / Corning's Infringement
	Further, this method is infringed by Verizon / Corning when Corning Everon 6000 DAS solutions are tested and/or used by Verizon / Corning.

Claim 19	Verizon / Corning's Infringement
The method of claim 12, wherein the dynamic load balancing and resource management uses network capacity to route signal traffic.	Verizon / Corning's wireless solutions meet this claim element. *See* **Claim 12**, *supra.* For example, Corning Everon 6000 DAS solutions include a digital access unit which sends a digital representation of a first set of radio resources and a digital representation of a second set of radio resources to a first remote unit, wherein a number of radio resources in the first set of radio resources is different from a number of radio resources in the second set of radio resources at least based on dynamic load balancing and resource management, and wherein the dynamic load balancing and resource management uses network capacity to route signal traffic. *See* **Claim 8**, *supra.* Further, this method is infringed by Verizon / Corning when Corning Everon 6000 DAS solutions are tested and/or used by Verizon / Corning.

Claim 20	Verizon / Corning's Infringement
The method of claim 12, wherein the first remote unit is a low power radio capable of using multiple frequency bands.	Verizon / Corning's wireless solutions meet this claim element. *See* **Claim 12**, *supra.* For example, Corning Everon 6000 DAS solutions include a first remote unit which is a low power radio capable of using multiple frequency bands. *See* **Claim 9**, *supra.* Further, this method is infringed by Verizon / Corning when Corning Everon 6000 DAS solutions are tested and/or used by Verizon / Corning.

Claim 21	Verizon / Corning's Infringement
The method of claim 12, wherein the signals communicated between the digital access unit and remote units are sent via optical cables.	Verizon / Corning's wireless solutions meet this claim element. *See* **Claim 12**, *supra.* For example, Corning Everon 6000 DAS solutions can use optical cables to communicate digital signals between the digital access unit and the remote units. *See* **Claim 10**, *supra.* Further, this method is infringed by Verizon / Corning when Corning Everon 6000 DAS solutions are tested and/or used by Verizon / Corning.

UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

DALI WIRELESS, INC., Plaintiff, v. CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS, VERIZON CORPORATE SERVICES GROUP INC., VERIZON ONLINE LLC, COMMSCOPE HOLDING COMPANY, INC., COMMSCOPE, INC., COMMSCOPE TECHNOLOGIES LLC, ERICSSON INC., TELEFONAKTIEBOLAGET LM ERICSSON, CORNING, INC., and CORNING OPTICAL COMMUNICATIONS LLC, Defendants.	Civil Action No. 6:22-cv-00104-ADA JURY TRIAL DEMANDED

DECLARATION OF JYOTIN BASRUR
IN SUPPORT OF MOTION TO SEVER AND STAY

I, Jyotin Basrur, make the following declaration:

1. My name is Jyotin Basrur, and I am an employee of Corning Optical Communications LLC ("Corning"). My title is Senior Director, Product Line Management, In-Building Network Solutions, and in this role I am responsible for Corning's in-building network product lines. I am over 18 years of age and am competent to testify as to the matters set forth herein. I make the following statement based on my own personal knowledge, unless expressly stated otherwise.

2. I have been informed that the plaintiff in the above captioned case, Dali Wireless, Inc., accused Verizon of infringing a number of patents based on Verizon's deployment of

products supplied by CommScope, Corning, and Ericsson (the "Supplier Defendants"). I understand that the specific products accused of infringement are CommScope's Ion®-E/ERA Platform, Ericsson's Radio Dot System, and Corning's Everon™ 6000 DAS Solution. For ease of reference, I will refer to these products collectively as the "Accused Products."

3. Corning is a direct competitor with Ericsson and CommScope in the wireless space.

4. Corning does not permit its competitors, including CommScope and Ericsson, to access its proprietary technical information such as proprietary technical information relating to the Corning Everon™ 6000 DAS Solution.

5. Corning designs, develops, manufactures, or otherwise procures its Everon™ 6000 DAS Solution.

6. Corning does not design, develop, or manufacture (or otherwise procure) the accused CommScope and Ericsson products.

7. Corning's Everon™ 6000 DAS Solution is proprietary to Corning, and to Corning's knowledge, is not sourced from a common manufacturer that suppliers the CommScope or Ericsson products.

8. Corning's Everon™ 6000 DAS Solution is a different product from CommScope's Ion®-E/ERA Platform and Ericsson's Radio Dot System.

9. Corning does not have any joint development agreements between it and CommScope or Ericsson relating to the Everon™ 6000 DAS Solution or CommScope or Ericsson's Accused Products.

10. Corning's employees responsible for its Everon™ 6000 DAS Solution do not work with the CommScope employees responsible for its ION-E/ERA Platform or the Ericsson

employees responsible for its Radio Dot System with respect to those products in planning, developing, testing, operating, or maintaining Verizon's LTE or 5G networks.

11. Corning did not plan, develop, test, operate, or maintain the Everon™ 6000 DAS Solution with or in coordination with CommScope or Ericsson.

12. Corning does not permit Verizon to modify the circuits or the source code of the accused Everon™ 6000 DAS Solution.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed on October 11, 2022 /s/ Jyotin Basrur

Attorney Work Product and Privileged Communication
IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

DALI WIRELESS, INC., Plaintiff, v. CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS, VERIZON CORPORATE SERVICES GROUP INC., VERIZON ONLINE LLC, COMMSCOPE HOLDING COMPANY, INC., COMMSCOPE, INC., COMMSCOPE TECHNOLOGIES LLC, ERICSSON INC., TELEFONAKTIEBOLAGET LM ERICSSON, CORNING INC., and CORNING OPTICAL COMMUNICATIONS LLC, Defendants.	)	Case No. 6:22-CV-00104-ADA **JURY TRIAL DEMANDED**

Declaration of Luigi Tarlazzi in support of Motion to Sever and Stay

I, Luigi Tarlazzi, declare as follows:

1. I am over 18 years of age, and I am competent to testify as to the matters set forth herein. I make the following declaration based on my own personal knowledge.

2. I am an employee of CommScope. My job title is Vice President of Engineering for ICN (Intelligent Cellular Networks). As part of this job, I have engineering responsibilities for the CommScope's Era and OneCell product lines. I will call these products collectively the "accused products."

3. CommScope designs and develops the accused products, and the accused products are proprietary to CommScope. CommScope did not jointly develop these products with Corning or Ericsson. Rather, CommScope is a competitor with Corning and Ericsson in the wireless product space. As such, CommScope also does not jointly operate, develop, or sell the accused products with Corning and Ericsson. CommScope also does not cooperate with Corning or Ericsson in planning, developing, testing, operating, or maintaining the CommScope accused products deployed in AT&T or Verizon's LTE or 5G networks. To be clear, the accused products are separate and distinct products from any competing products sold by Corning and Ericsson.

4. CommScope has possession, custody, and control of the factual information in the form of witnesses and related documentation that shows the design and development of the accused products.

5. I understand that CommScope has contractual obligations to defend Verizon in this case against the allegations Dali has made that CommScope's Era products infringe Dali's patents asserted against those products in this case, and therefore, CommScope will be defending and indemnifying Verizon in accordance with those contractual obligations and the rights, obligations, and limitations contained therein.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on September 23, 2022

Luigi Tarlazzi

UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

DALI WIRELESS, INC., Plaintiff, v. CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS, VERIZON CORPORATE SERVICES GROUP INC., VERIZON ONLINE LLC, COMMSCOPE HOLDING COMPANY, INC., COMMSCOPE, INC., COMMSCOPE TECHNOLOGIES LLC, ERICSSON INC., TELEFONAKTIEBOLAGET LM ERICSSON, CORNING, INC., and CORNING OPTICAL COMMUNICATIONS LLC, Defendants.	Civil Action No. 6:22-cv-00104-ADA JURY TRIAL DEMANDED

DECLARATION OF PAUL WALKER
IN SUPPORT OF MOTION TO SEVER AND STAY

I, Paul Walker, make the following declaration:

1. My name is Paul Walker, and I am an employee of Ericsson Canada ("Ericsson"). My title is Leader, RA Indoor, and in this role, I am responsible for managing the development and delivery of Ericsson's Indoor Product portfolio. I am over 18 years of age and am competent to testify as to the matters set forth herein. I make the following statement based on my own personal knowledge or based on my knowledge as an Ericsson employee.

2. I have been informed that the plaintiff in the above captioned case, Dali Wireless, Inc., accuses Verizon of infringing a number of patents based on Verizon's deployment of products supplied by CommScope, Corning, and Ericsson (the "Supplier Defendants"). I understand that

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the specific products accused of infringement are CommScope's Ion®-E/ERA Platform, Ericsson's Radio Dot System, and Corning's Everon™ 6000 DAS Solution. For ease of reference, I will refer to these products collectively as the "Accused Products."

3. Ericsson is a direct competitor with Corning and CommScope in the wireless space.

4. Ericsson does not permit its competitors or its customers, including CommScope, Corning, and Verizon, to access its proprietary technical information such as proprietary technical information relating to the Ericsson Radio Dot System or any other Ericsson product it sells.

5. Ericsson designs, develops, and manufactures (or has manufactured on its behalf) its products, including its Radio Dot System.

6. Ericsson does not design, develop, or manufacture (or otherwise procure) the accused CommScope and Corning products.

7. Ericsson's Radio Dot System is proprietary to Ericsson and is manufactured separate and apart from all other vendors, including products for the other Supplier Defendants.

8. Ericsson's Radio Dot System is a different product from CommScope's Ion®-E/ERA Platform and Corning's Everon™ 6000 DAS Solution.

9. Ericsson does not have any joint development agreements between it and CommScope or Corning relating to the Radio Dot System.

10. Ericsson does not cooperate with CommScope or Corning in planning, developing, testing, operating, or maintaining the Ericsson Radio Dot System deployed in Verizon's LTE or 5G networks.

11. Ericsson did not plan, develop, test, operate, or maintain the Radio Dot System with or in coordination with CommScope or Corning.

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12. To the extent Ericsson's Radio Dot System is alleged to infringe Dali's patents, I understand that Ericsson has contractual obligations to defend Verizon against Dali's allegations of infringement and, as such, are and will be defending and indemnifying Verizon in accordance with those contractual obligations.

13. Ericsson has possession, custody, and control of the factual information in the form of witnesses and related documentation that shows the design, manufacture and operation of its Radio Dot System.

14. Verizon does not have the ability to modify the circuits or the source code of the accused Radio Dot System.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed on September 16, 2022.

Paul Walker

UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

DALI WIRELESS, INC., Plaintiff, v. CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS, VERIZON CORPORATE SERVICES GROUP INC., VERIZON ONLINE LLC, COMMSCOPE HOLDING COMPANY, INC., COMMSCOPE, INC., COMMSCOPE TECHNOLOGIES LLC, ERICSSON INC., TELEFONAKTIEBOLAGET LM ERICSSON, CORNING, INC., and CORNING OPTICAL COMMUNICATIONS LLC, Defendants.	Civil Action No. 6:22-cv-00104-ADA JURY TRIAL DEMANDED

DECLARATION OF DAVID WOLFF
IN SUPPORT OF MOTION TO SEVER AND STAY

I, David Wolff, make the following declaration:

1. My name is David Wolff, and I am an employee of Cellco Partnership d/b/a Verizon Wireless ("Verizon"). My title is Director, Network Planning, and in this role I am responsible for planning and strategy for the Verizon Radio Access Network. I am over 18 years of age and am competent to testify as to the matters set forth herein. I make the following statement based on my own personal knowledge, unless expressly stated otherwise.

2. I have been informed that the plaintiff in the above captioned case, Dali Wireless, Inc., accused Verizon of infringing a number of patents based on Verizon's deployment of products supplied by CommScope, Corning, and Ericsson (the "Supplier Defendants"). I

understand that the specific products accused of infringement are CommScope's Ion®-E/ERA Platform, Ericsson's Radio Dot System, and Corning's Everon™ 6000 Das Solution. For ease of reference, I will refer to these products collectively as the "Accused Products."

3. Verizon does not design, develop, or manufacture the Accused Products.

4. When Verizon deploys the Accused Products supplied by one of the Supplier Defendants, the Accused Products from that Supplier Defendant are not connected to and do not directly interact with the Accused Products from another Supplier Defendant.

5. Verizon does not have possession, custody, or control of the factual information that shows the detailed design, development, or manufacture of the Accused Products. Instead, Verizon relies on its suppliers in this case the Supplier Defendants to maintain this information in the form of knowledgeable individuals and technical documentation.

6. In my experience, any technical documentation in Verizon's possession, custody, or control relating to the design, development, manufacture, or operation of the Accused Products is information provided by the Supplier Defendants.

7. Verizon does not have the ability to modify the circuits or the source code of the Accused Products.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed on October 11, 2022 /s/ David Wolff

UNITED STATES DISTRICT COURT

FOR THE WESTERN DISTRICT OF TEXAS

WACO DIVISION

DALI WIRELESS, INC., Plaintiff, v. CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS, VERIZON CORPORATE SERVICES GROUP INC., VERIZON ONLINE LLC, COMMSCOPE HOLDING COMPANY, INC., COMMSCOPE, INC., COMMSCOPE TECHNOLOGIES LLC, ERICSSON INC., TELEFONAKTIEBOLAGET LM ERICSSON, CORNING, INC., and CORNING OPTICAL COMMUNICATIONS LLC, Defendants.	Civil Action No. 6:22-cv-00104-ADA JURY TRIAL DEMANDED

ORDER GRANTING DEFENDANTS' OPPOSED MOTION TO SEVER AND STAY PENDING FINAL RESOLUTION OF SUPPLIER LAWSUITS

Before the Court is Defendant Verizon[1] and its suppliers CommScope[2], Ericsson[3], and Corning[4] (collectively, "Defendants") Motion to Sever and Stay Pending Final Resolution of

[1] "Verizon" is defined herein as Defendants Cellco Partnership d/b/a Verizon Wireless, Verizon Corporate Services Group Inc., and Verizon Online LLC, collectively.

[2] "Commscope" is defined herein as Defendants CommScope Holding Company, Inc., CommScope Inc., and CommScope Technologies LLC, collectively.

[3] "Ericsson" is defined herein as Defendants Ericsson Inc. and Telefonaktiebolaget LM Ericsson, collectively.

[4] "Corning" is defined herein as Defendants Corning, Inc. and Corning Optical Communications LLC, collectively.

Supplier Lawsuits. After consideration of same, the Court finds that motion is well-taken and should be **GRANTED**.

IT IS THEREFORE ORDERED that Defendants' Motion to Sever and Stay Pending Final Resolution of Supplier Lawsuits is hereby **GRANTED**.